RAILROAD

35 CENTS MAGAZINE FEBRUARY

FEB. 1952 RAILROAD MAGAZINE 35¢

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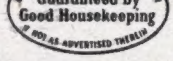

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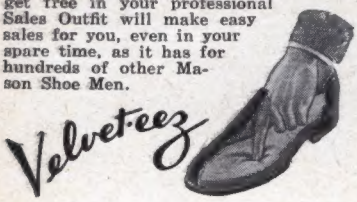

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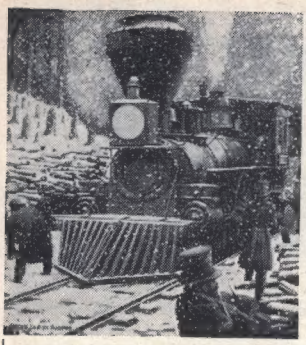

RAILROAD

MAGAZINE

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STUDENT BRAKEMAN

TAL MOREHEAD

MY RAILROAD career started on the Milwaukee in 1906 as a call boy in Savanna, Ill. and ended on the Southern Pacific at Tucson, Ariz. in 1946, at which time I was pensioned off. Some of my most vivid memories are of my days as student brakeman on the Milwaukee in 1912.

Following my months as call boy I worked off and on for the Milwaukee, as switchtender, and on the CB&Q rip track.

The month of February 1912 found both railroads doing business without my services. I had been running around with Charlie Schwartzinger, who was also looking for work. One day we ran into Tom Brennan (now retired and living in Savanna) and were about to ask if he had anything open. He beat us to it, telling us they were going to put a bunch of student brakeman on the Illinois Division, (now called the Dubuque and Illinois Division) from Savanna to Chicago, and said if we wanted to get on before word got out he would fix it up for us. I didn't give him any old baloney about another job coming up that I was considering, as that stuff had never seemed to scare anybody. I just said one word, "Sure."

When we finished our student trips and got our dates in, the Milwaukee started hiring students in earnest. What a bunch that was to draw from. There was a circus acrobat, a daredevil rider from a carnival, prize-fighters, bricklayers etc. They had come from all walks of life and some of them walked right back to where they came from. But some of them had what it takes too, and are still there, including Charlie Schwartzinger, who has been running trains for a good many years. Charlie and I were lucky enough to have been around a railroad at

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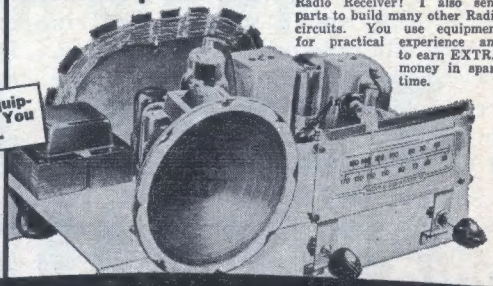

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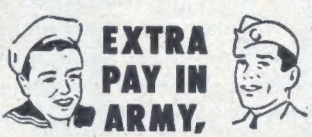

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least, although this was our first job braking; but some of those boys hardly knew a box car from a Pullman.

I remember best a student by the name of Charlie Van Norman. I had seen him first in 1910 with a street carnival in Savanna. He rode down a high slide on a bicycle, the slide turned up sharply at the end and would throw him and the bike into the air. The bike dropped into a net and Van Norman dove into a tank of water. It was called the "leap for life" and was quite a stunt. I guess Van Norman figured he might miss that tank some day and thought he would be safer riding boxcars, so he came to the east end as a student brakeman. He was a misfit on the railroad if I ever saw one.

ONE night we stopped at Leaf River for water on an eastbound drag. Van Norman was braking ahead for Frank Danford on a westbound, and they had also stopped there to cool off a hotbox that was really blazing. As I went along looking our train over I came up to the box that had been blazing. Van Norman had put the fire out and was still busily throwing sand in the journal box.

"What the h—l?" I ask. "Haven't you got any water?"

"Water," he snorted. "I can show youse guys how to put out fires without always carryin' a bucket of water. I learned dis in the circus."

"Yeah," I said. You sure did a quick job of putting the fire out, but how are you going to run that car with all that sand in the packing?"

That offspring of P. T. Barnum tumbled quick. "Don't say anything about this to Danford," he pleaded, "and I'll buy you a drink. He's been eating on me all night as it is."

I promised not to say anything and went on my way. As I came back on the opposite side of my train I heard Danford cussing circuses and everyone connected with them. Evidently Van Norman hadn't had time to get all the sand out of the journal box.

Frank Danford is now retired and living on a farm in Arkansas, last I heard.

I also remember the last bright move Van Norman pulled off. He was braking behind for King Brown. They were in the hole at Byron for No. 6. King went to the head end to ride the engine to Davis Jct. When he left the caboose he cautioned Van Norman to be sure and line the mainline switch when they pulled out. They had some work to do at Davis Jct. and then had to get in the clear for No. 12, the *Southwest Limited*. After No. 12 passed, King was informed that they had found the mainline switch open at Byron. Although they had been working at Davis Jct. for an hour Van Norman had said nothing about the switch. When King ask him if he had left the switch open at Byron, he said, "Certainly. Did you think I was going to get left. Not me! When I see that hogger was pulling out too fast for me to get the switch and get back on I handed him a highball. No hogger is goin' to leave me. I'm too smart for that."

King got ten days if I'm not mistaken and Van Norman got fired. He put up such a squawk about it that Trainmaster Thurber, who was a fair man, gave him a letter to be signed by all conductors he had broke for stating that he was a good brakeman.

Joe Tully, the trainmaster's clerk, said Van Norman was smart enough to know he would never get a conductor to sign it. He stared at the letter a while, then slowly tore it to shreds, and said, "Well it looks very much like I'll have to go back to the carnival. If I ever come through this burg again Mr. Thurber, you and all the conductors I've ever broke for have a standing invitation to take a ride with me on the "Leap for Life."

That was the last I ever saw or heard of Charlie Van Norman. King Brown has been dead several years. The last I heard of Joe Tully he had gone braking on the west end.

Numbered among the students in our bunch was a heavyweight prizefighter by the name of Jim Went. One night he caught a *Savanna* to Davis Jct. turn-

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City ..... State .....

around, braking behind for Al Kramp. They had trouble with the air sticking on the caboose out of Savanna, and when they got their heavy coal drag ready for the return trip, Al told Jim he wasn't going to be bothered with the air sticking on the caboose on the way back and was going to cut it out. Unnoticed by Jim, Al cut the air out on the caboose and went to the head end to give the engineer a clearance. When they pulled up the hill out of the passing track onto the main line, Al decided to reline the mainline switch to save Jim getting off and back on again. When the rear end reached the main line, there was Jim perched comfortably on top the rear car of coal and no caboose.

"What's the big idea!" Al yelled when he got the train stopped. "Where in h—l's the caboose?"

Went then told him that he had understood him to say he was going to cut the caboose out, so he had decided to cut it off right there and leave it. Al threw a fit. "I've tried my darndest to teach you railroading, but if you can't fight any better than you can brake I can lick you with one hand tied behind me."

Al Kramp has been away from the railroad for a good many years and lives in Elgin, Ill.; Jim Went I know not where.

O. T. Welsh is one conductor I will never forget. His methods for teaching us were somewhat different from the majority of conductors. He was a young runner in 1912, but one of the best and seemed to enjoy showing us the right way. He never lost his temper and never bawled us out, but had a way of kidding us about our mistakes that made a lasting impression.

I remember the first time I was called with him. I stood for the rear end. We caught a relief job to relieve conductor Tim Lyons and crew at Lanark to go over the cutoff to Nahant, Iowa.

When we left the main stem at Ashdale and headed down the cutoff I decided to catch up on a little rest. I had just dropped off to sleep when O. T. Welsh came over to my side and shook me.

"Now Tal," he said, "don't you know the ruling I put out to all my brakemen?"

I admitted I didn't, so he proceeded to inform me in something like these words. "You just watch me when you're not looking the train over and when you see me go to sleep, let me sleep for 20 miles and then wake me up and you can sleep the next 20 miles. But I always insist on the first 20 miles—get it?"

It took me a few trips with him, but I finally got it.

He pulled the same stunt on Leo Sheedy, who is now switching in Savanna. Leo thought Welsh was a great guy to do that and was telling me about it. I laughed to myself, but didn't tell him that I had made several trips with O. T. and had yet to see him sleep that first 20 miles.

O. T. was pensioned off, lived in Kingston, Ill. for a number of years and passed away in Tucson, Ariz.

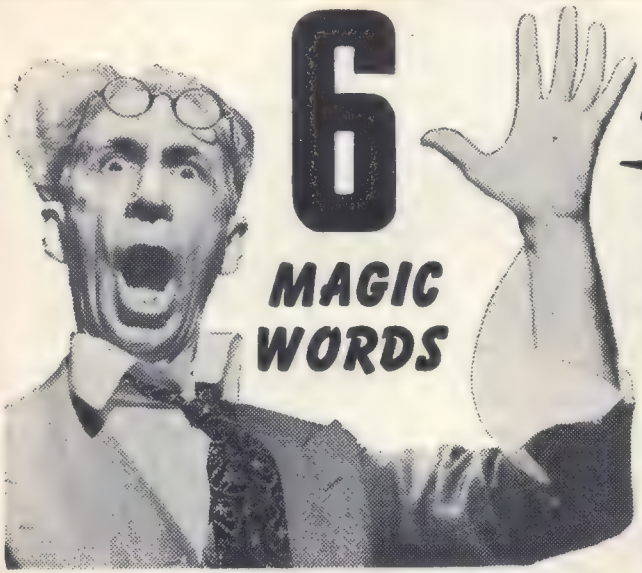
Trainmaster Nate Thurber transferred to the Dubuque Division in 1914 and a man by the name of Richards, whose initials I do not recall, took his place in Savanna. He had been there but a short time when he stopped me one morning.

"I have a job open on a local on the R&SW Division," he said. "I'm having a hard time getting a brakeman to stay on it. Work has slowed up here, and (looking me over), although you look pretty light for the job, I thought you might take it. But don't go up there unless you intend to stick to it."

I mumbled something about no local being too much for me, especially up on that peavine. "Don't worry about me, Mr. Richards," I said. "I'll stick."

The local ran between Beloit and Racine, Wisconsin. Good-natured Irish John Reagon was conductor, and brother I'm telling you that was some local.

I hadn't gone very far when I realized my 125 pounds wasn't enough beef for that job. I had been used to riding, and I mean riding on double track on through freight from Savanna to Chicago, seldom



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setting out or picking up a car, so I was plenty soft. They didn't need a brakeman —they needed a draft horse.

We unloaded everything from threshing machines and manure spreaders, to light stuff like drums of oil and barrels of molasses. While resting between stations, we rode in the boxcars, moving the freight up to the car doors so as not to lose any time unloading at the next station.

After fifteen hours and forty-five minutes of drag, push, lift and shove we reached Racine, and the only reason I didn't wire Richards to send three or four husky freight handlers to relieve me was that I was unable to walk fifteen car lengths to the depot to send the wire.

THE return trip was just as bad, and I made up my mind I would reserve enough strength to get to the depot there to wire for immediate relief. Then I would be on my way to Savanna on the first thing headed that way.

When we arrived at Beloit after fifteen grueling hours, I washed up in the caboose, changed clothes, grabbed my battered suitcase and headed for the depot.

Irish John was just coming out of the telegraph office as I was going in. He must have surmised what I had in mind, for he stopped me and said, "Taly, me b'y, ye've the makins of a good brakeman." Did I pop off? "How the h—l do you know? I haven't cut off nor coupled up a car, not even as much as given a signal in the two days I've been on this job. Why," I raved, "I haven't even been close enough to the engine to know whether the engineer is a Negro or a white man."

John threw back his head and roared with laughter. "But seriously," he said. "Stay on the job until somebody bids it in. It shouldn't be more than a few days."

I informed him I wasn't going to wait for some poor devil to lose his mind enough to bid that slave run in.

After sending my wire, I didn't wait for a reply, but caught the first freight out of there.

Richards really layed it on when I got back to Savanna. In the two days it took me to recuperate, I made a vow that from then on I'd stay away from any R&SW Division local.

I don't know what became of Trainmaster Richards, and John Reagon may be dead, but the last I heard he was still running train.

I was braking for Clint Whitmore in 1916, when I got a bad knee injury. I was off work for quite a while, and then in 1917 I went with some others to make the world safe for democracy. On my return I again worked a while for the Milwaukee. Then my feet began to itch, and with my wife and baby I followed Horace Greeley's advice and went west.

I had been pensioned off the SP a few weeks in 1946, when who popped in on me one day in Tucson, but my old Buddy, Charlie Schwartzinger. He was on his way to the coast by car and I insisted he stay a few days with me. We took a short trip to Nogales, Mexico where we had our picture taken shaking hands in celebration of our reunion after more than 30 years. He told me all he could of the rest of the student brakemen of 1912. Bill Keenan was running passenger between Savanna and Chicago. John, Bill's brother, was dead. Leo Sheedy, another boyhood pal was switching in Savanna for the Milwaukee, and Charlie has run train a good many years. So end my memories of the student brakemen of 1912.

FIRST MODEL RAILROADER. Nathan Hale, father of the celebrated author and divine, Edward Everett Hale, was probably the first model railroader in America. The son once related that his father illustrated the new invention of Stephenson by a toy railroad which he built and operated in the drawing room of his Boston home. Hale's model railroad was in use before steam railroads were introduced in New England. Referring to his father's hobby, the author of "The Man Without a Country" wrote that he was old enough to chafe as he saw the incredulity and the half-contempt with which friends of his father "tried to turn him from his delusion."—*L. I. Railroader*

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The villagers had heard of San Cobar. The old legends said that it was a place of great wealth. But it lay beyond the mountains from which no man had returned alive. True, El Borracho, the drunken trader, had returned from his mysterious wanderings with rich ornaments, but he was now far gone in drink.

The stranger showed El Borracho more gold than he had ever seen, enough to make him forget the terrible mountain gales, the yawning crevasses.

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NOT ON THE WHEEL REPORT

Joe Easley

"You know, boys, the way I figure this—that second section's run too fast!"

Prime Mover...

of the goods this country needs for national defense, and for its daily life and work, is the flanged wheel on the steel rail. Day and night—all across the face of the nation—at all seasons of the year—freight trains roll, carrying raw materials and finished goods, products of farm and forest and mine, of mill and factory.

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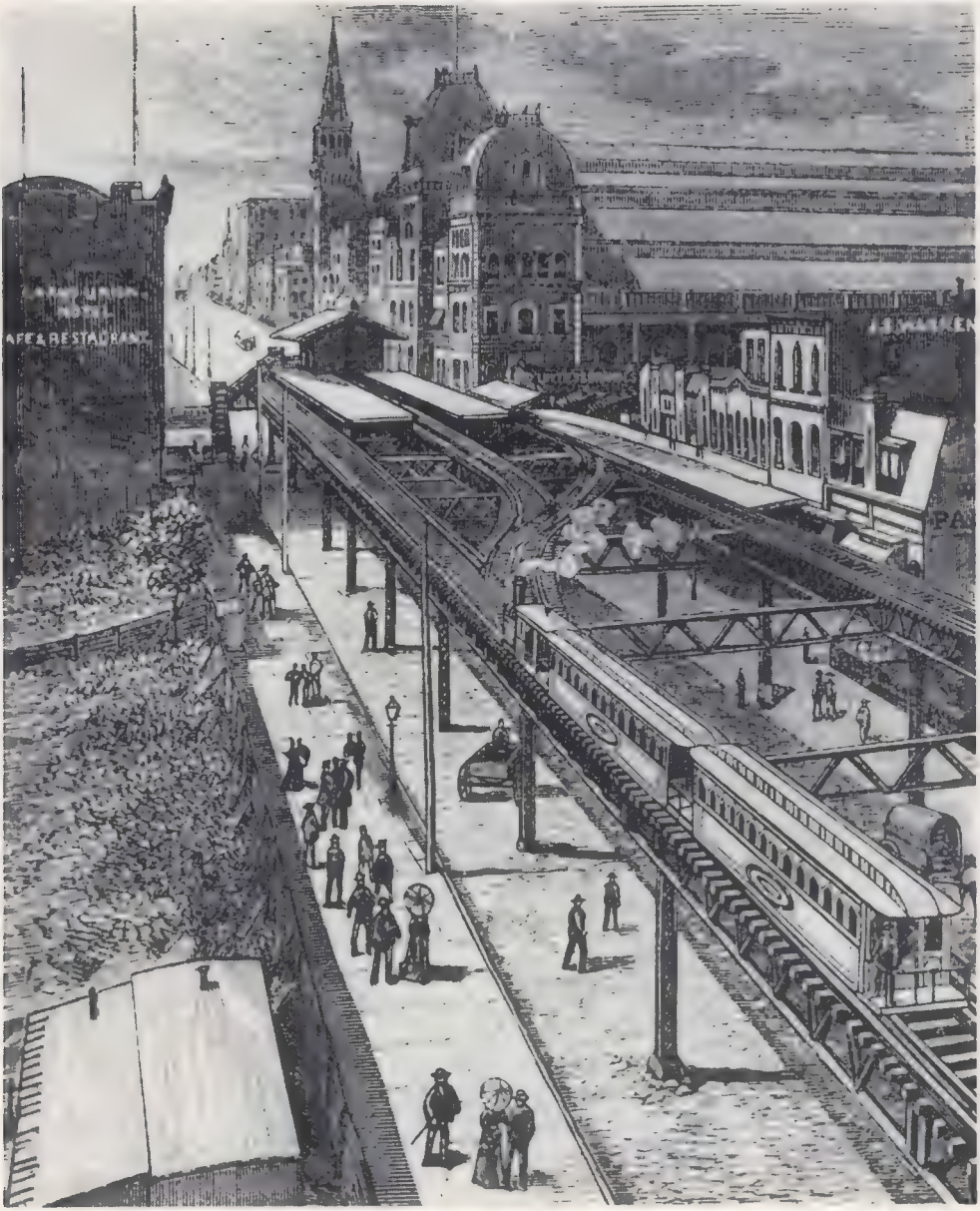
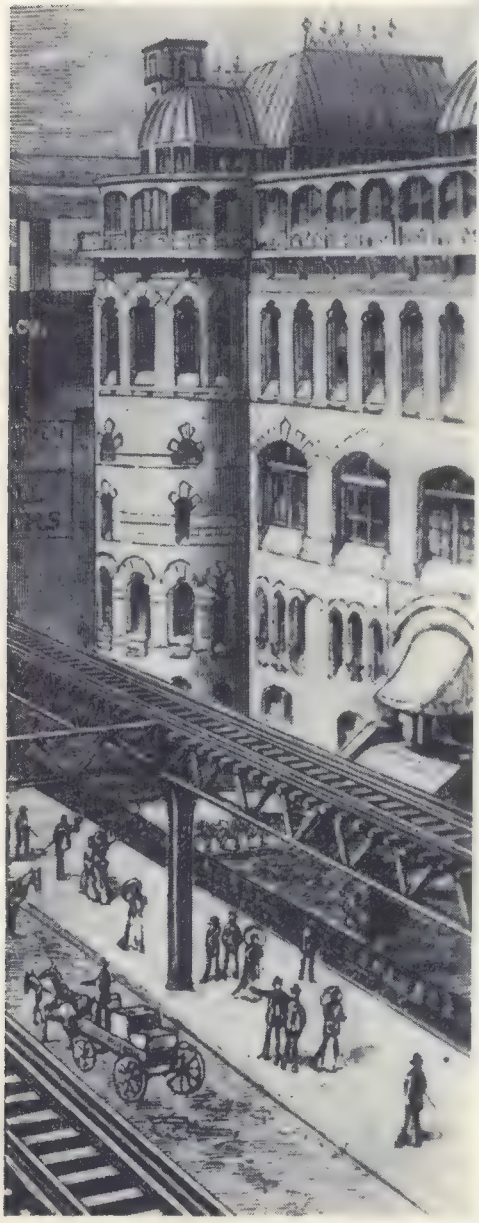


RAILWAY

PROGRESS DOOMS THE SKID ROW SCENIC — LAST OF GOTHAM'S FAMED "ELEVATEDS"



By
MELVIN C. KRAMPF

THIS IS the story of a railway that dominates one of the most infamous streets in the world—New York's Bowery—the home of homeless men.

In some ways the life of the Third Avenue Elevated parallels the lives of the forgotten, faceless men—and women—who sprawl on the sidewalks beneath its gloomy superstructure along the Bowery. It had its bright, hopeful and useful youth. Now the hand of time and decay lies heavily on it and the inevitable end is in the offing.

The usefulness of this colorful railway is about over. Its death warrant has been signed. Father Knickerbocker awaits only completion of financial arrangements for another subway before he gives orders for the demolition of this last of Manhattan's elevated lines.

The projected Third Avenue Subway will vastly improve New York's pressing transportation problem. Demolition of the El will bring the light of God's good sun again to its most fabled street—scene of the Lost Week End—scene of a million lost week ends, unrecorded tragedies, hopeless despair—death.

What will the Bowery be like when the sun shines on it again? Where will its hapless derelicts go? Will New York's Skid Row move to some other decrepit and forgotten neighborhood—in the shadows of one of the island's great bridges,

Melvin C. Krampf

The El shadows Skid Row, home of untouchables from 48 states. Alms-seeking approach varies from the oblique, "Spare a dime for a cuppa coffee?" to the straightforward, "I ain't gonna lie—will ya buy me a drink?" Some railroads, like New York Central, maintain labor offices in this area

where the gloom will hide the shame and despair of human wrecks, the flotsam and jetsam that drift into the backwashes of a great city?

In the last decade or so, New York has demolished the Second Avenue El and the Sixth and Ninth, and the changes on these streets have been amazing. Slum neighborhoods almost overnight have become bright, smiling places. Property values have soared. A better class of people have moved in. New buildings have been erected on these wide, sunny avenues that were once decrepit slum areas, created by the massive elevated superstructures and the rumble and roar of the trains.

Will this happen to Third Avenue?

Very likely. That famous old street could do with a thorough face lifting.

But Chatham Square, the Bowery, the bistros in the Forties, won't be the same. Painters, poets, plain every-day citizens, will shed a tear when the acetylene torches cut through the last girder of the Third Avenue El and the avenue becomes respectable. It will be like the passing of an old—and slightly worse for wear—friend. A lot of us will miss her. We will miss those precarious, dizzy rides past second-story windows with intimate glimpses of rooms, apartments, workshops, cheap hotels. We will miss the rumble and roar of the trains.

Actually, of course, Manhattan's elevated railways have been doomed for nearly half a century—ever since the first

subway was completed in 1904 and electricity replaced steam. Their eventual demise was only a question of time. Subways are faster, more efficient—if no cleaner or more comfortable.

Though elevated lines now seem outlandish, it was not always so. Seventy-five years ago they were the last word in transportation and cities that had them boasted of their modernity.

Manhattan's Els had no easy birth. As a matter of fact, long labor pains preceded them, and a lot of screwy ideas and plans were discarded before the first El was built. Even after the first one was constructed in 1867, this form of transportation survived fierce competition, political skullduggery and financial woes. August Belmont, Cornelius Vanderbilt and other famous men are involved in the history of the Els. Fortunes were made and lost. There were gory accidents, and always the curses of Manhattanites who never have been satisfied with the ways and means of getting them around.

Manhattan has had a knotty transportation problem for a century. The island is only 12½ miles long and 2½ miles broad at its widest point and contains only 22.24 square miles; but its population is some 2,000,000 with hundreds of thousands pouring in daily on business. Everybody is going some place and practically everyone is in a hurry. Principal trouble, outside lack of space, is the fact that the city, like Topsy, just growed, and planning was usually an afterthought.

A century ago, the horse seemed to be here to stay and horse-drawn trolleys were adequate. Then Manhattan had less than half a million residents. From 1850

(Continued on page 23)

Melvin C. Kramp

Third Avenue Elevated Lines control tower and maze of switches in Bronx looks like bigtime railroading, and is, if you can go by number of passengers hauled per annum

Photos by Melvin C. Krampf

Above: Motorman's eye view, approaching 59th Street. Train has left Bowery slums far behind, is now passing through ritzy East Side. One nobby French restaurant in El's shadow here gets $25 per couple. Light-colored building at right of track in distance occupies site of former Third Ave. streetcars

Left: Express riders have to climb extra flight of stairs: Photo taken from uptown train as it pulls into station shows super-elevation of express tracks leading to express station above one for local trains. Stairs-climbing ***before riding*** is advanced as one reason for decline of El's popularity

Right: Stub-end City Hall Station will soon be just a memory, along with branch from Chatham Square. Passengers from Brooklyn Bridge used to board El here. That's New York Municipal Building to left of station

Below: Northbound express barrels along single express track in center of El structure, by-passing local stations (see platform, right). Express trains are run downtown in morning, uptown at night in accordance with flow of toiling New Yorkers to and from work. Sunday express service may be discontinued, or limited, to save money

Malcom C. Krampf

Within view of modern pueblo city, the Bronx, Third Ave. El trains ply back and forth on stilt-legged structure. On summer Sundays, trains bring downtown crowds to Bronx Park, Zoo and Botanical Garden in this area

to 1870, however, the population nearly doubled and transportation problems became acute.

City fathers and engineers gave the problem a lot of study. They pondered on moving sidewalks, endless cables, elevated structures, subways—a dizzy galaxy of schemes for moving people and goods quickly and efficiently.

Between 1825 and 1889 more than 125 patents for various types of elevated lines were issued by the Patent Office, and in 1867 the inventive fever reached a new high when 40 different plans were submitted to the New York Legislature for elevated lines in Manhattan. These included pneumatic propulsion, cable cars motivated by steam, aerial transit cars running on cables attached to high buildings and towers. Subways had been studied, but discarded for several reasons that were valid then. First, Manhattan's thin soil rests on bedrock and the idea of blasting through it appeared impossible. Secondly, utilization of electric power was still in the developmental stage and use of internal combustion engines underground was impractical, then as now.

It may have seemed impossible in New York, but not in Boston, where one of the most fantastic transportation schemes of all times—including rocket trips to the moon—was hatched by an engineer. According to an old copy of the Boston Globe, this gentleman proposed to build an underground railroad from that city to New York. It would have been 100 feet deep, with cars operating on an endless belt powered by steam engines. The engineer believed that his underground road would be the beginning of a transportation system that would eventually link all the great cities of the country and solve all existing and future problems of transport.

He admitted, however, that his New York—Boston railway would cost a fabulous sum, to say nothing of the branch lines; but he blithely dismissed this trifling matter as not in the province of an engineer.

And over in the Palisades across the Hudson, about the same time, a moving sidewalk actually was built and operated quite successfully, only to come to grief when it was inspected by a group of engineers. The walk was constructed so there were varying speeds, one section traveling at two miles an hour, another at four miles, and the third at six miles per hour. Among the inspectors was an engineer well past his prime, and not so agile as he once had been. At first the engineers were enthusiastic, but when the old engineer stepped from the two-mile walk to the four-mile section, he fell and banged himself up considerably and the moving sidewalk idea was nipped in the bud. The engineers concluded that it was dangerous to life and limb, and turned thumbs down on the plan.

IN THE stampede of engineers eager to perfect plans for rapid transportation in New York, Charles T. Harvey seems to have been the most successful. Harvey had been chief engineer of a construction company that built the Lake Superior Ship Canal, and when he came to New York in the early sixties, the transit problems of Manhattan Island intrigued him. He was issued a patent for an elevated line on June 18, 1867, having formed the West Side and Yonkers Patent Railway Company the previous year, "For the purpose of constructing, maintaining and operating an elevated railroad in the City of New York, devoted to public use for the conveyance of persons and property by means of a propelling rope or cable attached to stationary power." The legislature granted the company a franchise for 999 years, and despite many reverses and bankruptcies of the company and subsequent companies, this became the most valuable franchise in New York City, forming the basis for future elevated lines and street railways. In 1867 the Legislature passed a bill permitting construction of the first half mile of the new road that was to run from the Battery to Yonkers, a distance of 25 miles.

The first quarter of a mile was finished and given its first trial on Dec. 7, 1867,

Melvin C. Krumpf

Third Avenue Elevated Yards at Mott Haven, the Bronx, where self-propelled rolling stock is stored when not in use, and kept in repair. Maintenance men have done a good job to keep some of these antiques rolling so long

with Harvey at the controls of a car truck instead of a car. The line started on the east curb of Greenwich street, between Battery Place and Morris street, and afterwards was extended to Cortland street, in April 1868. Steam engines installed in vaults operated an endless cable that propelled the cars.

At first engineers were pleased with the result. Later, when three miles of lines had been constructed, it was concluded that his method of operation was a failure and the road was turned over to the city's first Rapid Transit Commission. By 1870 the "one legged" structure had been extended to 30th street, and served the Hudson River Railroad passenger station on the south side of 30th street, between 9th and 10th Avenues. The Hudson River Railroad, of course, had been operating since 1847. Financial and other difficulties beset the undertaking and on Nov. 15, 1870 the road, its invaluable franchise and its rolling stock, consisting of six car bodies and three complete passenger cars, plus 4 vaults for stationary engines, were sold for $960 by the sheriff to Francis H. Tows, representing the bondholders. Opposition by surface company lines, property holders and rivals who wanted to get the franchise, and the ferocity of the Tweed Ring who then ran the city, was enormous, and every means of embarrassing the new elevated line was taken, even to staging of riots at the instigation of Tweed and his gang of thugs. Tweed was opposed to the elevated scheme because he and his followers had concocted a similiar plan, using viaducts as the supporting struc-

New York Public Library

Station interior, above, was on Sixth Ave. El, scrapped in 1939, but as all New York Elevated architecture was pretty much alike it gives a good idea of how a Third Ave. station looks today, the pot-bellied stove included

In the days of the bustle, the horse-drawn hack and the hurdy-gurdy. Chatham Square, looking north, or uptown. Track on left led to City Hall, that on right to South Ferry. Downtown service now terminates here

tures, and they wanted to get hold of the franchise.

Said the New York Herald on June 5, 1877: "In the days of the Tweed ring, the corruptionists went so far as to try to indict the Greenwich Street Railway as a nuisance: They boasted that they would not only tear down the road, but would fine and imprison the enterprising citizens who advanced money to try this important and now successful experiment. Engineers and newspapers were hired to assert that the road would not stand; that it was dangerous to the lives of passengers; that it would cause runaways of horses; that it would destroy business; and attempts were made at one time to incite mob violence against it."

Naturally the companies operating horsecars fought tooth and nail against the elevateds. They went so far as to construct double-deck cars which they deliberately drove into the el to try to prove that the structures were dangerous to horse-drawn vehicles.

On Feb. 9, 1871, the Transit Commission authorized the use of steam "dummies", or engines, to replace the stationary engines and this was to cause considerable controversy later. On April 20, 1871, the line, later to be known as the Ninth Avenue Elevated, began operation on steam, the mechanical contrivances used included a new dummy engine weighing about five tons, described as "very ornate" and "built to eliminate cinders, noises and scaring of horses." The line had only three cars, which were all used during rush hours, and two stations, one at Dey & Greenwich streets, and the other at 29th Street and 9th Avenue.

The company was reorganized on Oct. 27, 1871, with a capital of $10,000,000 as the New York Elevated Railway Company. On May 20, 1876 the use of steam by the new company was authorized after considerable controversy as to whether the authorization of 1871 was applicable to the new company. From that time on the future of the elevated was assured.

Meanwhile, another elevated, the Third Avenue, was being planned by the same company, utilizing the same all-valuable franchise granted in 1867.

The new line was to run from the Battery to Grand Central Depot at 42nd street, along the Bowery and Third Avenue. Construction was begun on Nov. 1, 1877 at Whitehall Street and Chatham Square, and the first service was inaugurated on August 15, 1878. Here is an account of that momentous occasion from *Leslie's Weekly* of Sept. 7, 1878:

"The line of the New York Elevated Railway on the East side of the city having been completed, excursion trains passed over it on August 15, starting at Hanover Square, in front of the Cotton Exchange, and going directly to Grand Central Depot Elevated Station. The distance from Hanover Square to 42nd street was made in 15 minutes. Through Pearl street and Franklin Square the pioneer train was run at a moderate rate of speed, passing between piers which are a part of the support to the Brooklyn Bridge. Beyond this point in the New Bowery, the road passes over low ground and to make an even grade, is built at an unusual height above the pavement. Along the Bowery and Third Avenue the windows of the houses are filled with people, and pedestrians watch . . . into 42nd Street.

"The locomotives constructed by the Baldwin Locomotive Works at Philadelphia for the Elevated Railway are of two patterns, the first a four-wheeled locomotive with outside horizontal cylinders and tank for carrying water, and the second is an eight-wheeled locomotive with outside horizontal cylinders and a swing bolster truck under the cab-and-tank unit. This latter plan of engine is known as the Forney Engine, the design having been patented by Mr. M. N. Forney, one of the editors of the *Railroad Gazette*. Both styles of engines have cylinder and driving wheels of the same size, viz. 'ten by fourteen.' Cylinder and driving wheels "38" diameter. The boilers are also of substantially the same size, so that the engines differ only in respect to the method of carrying the tank and in the capacity

of the tank—the four-wheeled engine having a tank on the boiler which has a capacity of 350 gallons of water; the eight-wheeled engine having a tank on an extension backward of the engine frame, supported by a four-wheeled truck which has a capacity of 450 gallons of water. In the construction of these engines especial attention has been given to their design, in order to arrive at the greatest possible strength and efficiency, as to both speed and tractive power, with the least possible weight. Steel therefore has been largely used in their construction. The boilers, furnaces, parallel rods, axles, wrist pins and tires, and all wearing parts of the machinery are of steel, or iron case hardened. The truck wheels in the eight-wheeled engine, instead of being the ordinary cast iron chilled wheels are steel tired. The engines are all supplied with the Eames Vacuum Brake, the ejector of which is fitted with an appliance which muffles or deadens the noise of the escaping steam when the brakes are applied. Although these are two plans of engines, they are, mechanically speaking, duplicates in the most important respects of the method of construction of locomotives by Baldwin Locomotive Works. All like parts of the engine are accurately interchangeable, so that a cylinder, driving wheel, cross head, eccentric, driving box, or any important part can be taken from one engine and placed in another, if required. By this means the cost of repairs is largely reduced and it becomes possible to keep the engines in service with the least possible loss of time for repairs. Both styles of engines have cabs of the ordinary locomotive pattern, instead of being wholly enclosed, as is the

Stereoscope views from Nick Eggenhofer

"Along the noted Bowery." El was split in days of steam power, planked over later for express track

Cops will be cops, in 1890 or 1952. Note dome-hatted arm of the law riding El steam dummy

An old view of Chatham Square, with steam-powered train puffing away for Brooklyn Bridge and City Hall

case of the engines in use on the West Side line, which apparently were built to look as little like locomotives as possible.

"THE cars . . . were manufactured by the Wason Manufacturing Co., of Springfield, Mass., and while they are not as expensively furnished as those in use upon the Metropolitan Railway, they are models of convenience and adaptability. They measure inside 37½ feet in length by 7⅓ feet in width, with Gardner's patented length-wise seats affording ample room for 50 passengers. The most complete ventilation is provided for by an elevated (clerestory) roof running the whole length of the car. The elliptical windows are provided with double blinds, which, with the windows, can be raised and lowered at pleasure. The interior finish is black walnut and birdseye maple with raised panels and mouldings of mahogany, handsomely ornamented ceilings of Eastlake style, with real bronze trimmings and lamps of similar design . . .

"The exteriors are painted a rich carmine, highly decorated after the Queen Ann School and impress one favorably. Iron frame trucks of a new pattern are used, combining to an unusual degree lightness and strength. Steel tired wheels and steel axles, also the Eames Vacuum Brake, are used upon the cars. The manufacturers have made the noiseless running of their cars a constant study and are confident of their success in this particular.

"Regular runs were begun Aug. 26 from the Battery to Grand Central, fare 10 cents, running time 20 minutes."

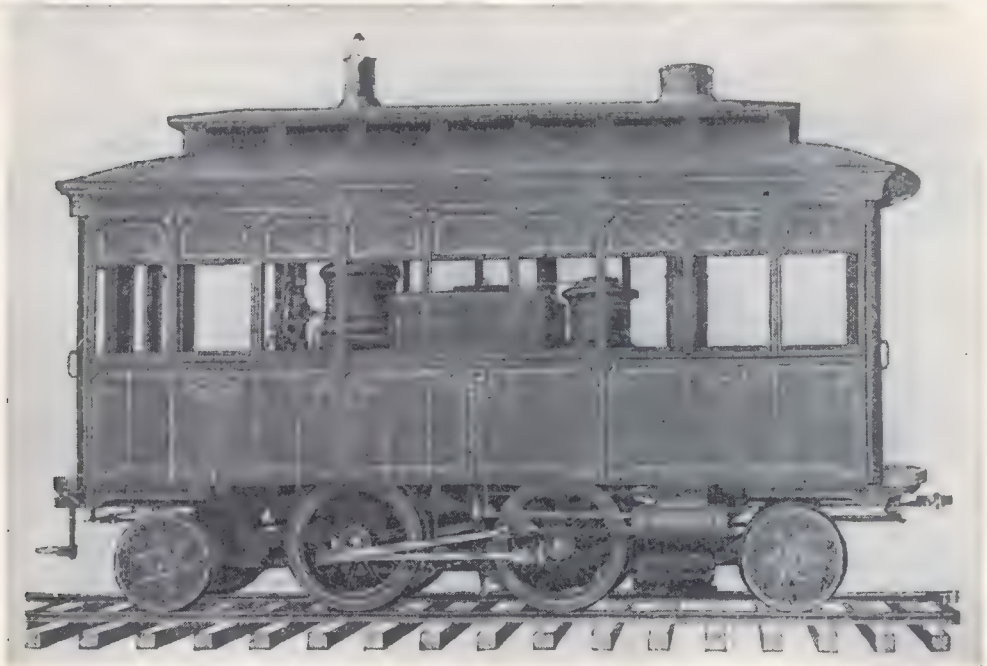
Shuttle service from Third Avenue and 42nd Street was maintained until Jan. 1, 1924 when the city took over the spur

Third Ave. El scene below is not identified, but may be point where tracks pass below steel-work of Manhattan Bridge

Downtown terminus of Third and Ninth Ave. Els at South Ferry. It is known by few people, even among New Yorkers, that Third Ave. used to provide freight and express service from this point to far uptown Harlem. *Below:* Six-ton steam dummy once used on New York Els

and demolished it. A similar service was started on a spur on 34th street to connect with the Long Island ferry on the East River, which was popular with the racing fans who patronized Belmont. When racing was prohibited in 1905, the ferry went out of business and the spur was demolished by the city in 1930.

A City Hall branch from the Bowery and the New Bowery to and through



Chatham Street (now Park Row) to Tyron Row and connecting with the Brooklyn Bridge, then under construction, was opened on March 17, 1879. Opening of the Brooklyn Bridge on May 24, 1883 made this station a very busy and popular one, for residents of Brooklyn now could get into Manhattan by trolley and afoot and could get quickly to almost any part of the city.

The extension from 42nd Street to 67th Street was opened Sept. 16, 1878 and to 89th Street a few months later. Then the line extended to 129th Street, where yards were built between Second and Third Avenues. Eventually the Third Avenue was extended to 210th Street, and became a powerful influence in developing the Bronx.

One of the Forney engines built for Third Ave. by Rhode Island Locomotive Works in 1878. When New York Els were electrified—1901 to 1903—steam jacks were sold all over the world, were said to have put elephants out of hauling business in India and Burma

The Third Avenue has had its share of excitement, and for several years was literally a Manhattan Wells Fargo. In 1907 that famous company, then emerging from the Wild West days, concocted a scheme to deliver express from its main station at 39 Greenwich Street to 129th Street. This service, which insured rapid delivery of freight from downtown New York to uptown Bronx via five daily trains, continued for ten years.

Financial woes always have been the ghosts that haunted New York's transportation system. The Third Avenue El had been reorganized numerous times prior to being taken over by the city a decade ago. Before the leasing of its lines to the Interborough Rapid Transit in 1903, it was owned by the Manhattan Railway Company, which at that time controlled all the elevated lines in Manhattan and the Bronx.

Unification of all New York City rapid transit and of some Brooklyn surface lines was effected in June 1940. This originated primarily as an economic problem arising during and immediately after World War I. Prior to that time the subway lines were owned by the city but leased to and operated by private corporations under 49-year contracts which limited the fare to five cents. Surface and elevated lines were wholly owned and operated by private corporations, and the major portion of them were operating under franchises or contracts which likewise limited the fares to a nickel.

The sudden rise in the cost of operation (wages, materials and supplies) that accompanied and followed World War I, made the five-cent fare too low to meet operating costs and interest on the funds that had been borrowed by the city and

It was still "little Old New York" when this picture was taken in 1891, where the El meandered down through Pearl Street, past Fulton Fish Market and the dock section to South Ferry

the companies for construction, equipment and power production for the rapid transit lines.

As early as 1918, the State Public Service Commission was investigating the situation and seeking a solution. Between that date and the date of unification the private companies also made various efforts of their own to free themselves from the fare limitations. Court actions were instituted and appeals were made to the city administration and to the State Legislature. All these efforts by the private companies failed.

Unification in its broader phase might be said to stem from a speech made by John H. Delaney in 1919, then Transit Construction Commissioner and later chairman of the New York City Board of Transportation, which built and operated the first municipally-owned subway in New York and which now operates the unified transit system. His speech, in which he insisted that something very definite must be done to cure the "sick transit situation," created wide-spread interest and resulted in an enactment by the State Legislature in 1921 of a law creat-

ing the Transit Commission to succeed the Public Service Commission of the First District with a definite mandate to prepare a plan "for readjustment and unification of the transit lines of New York City." Such a plan was prepared and submitted to the city authorities in 1922 but failed of approval.

For a number of years afterwards various other plans were put forward by the Transit Commission. All of them favored quasi-municipal operation only and all sought to set up as a new unified operating agency, an authority or board of control composed of members of the city administration and partly of members chosen by the owners of the transit companies.

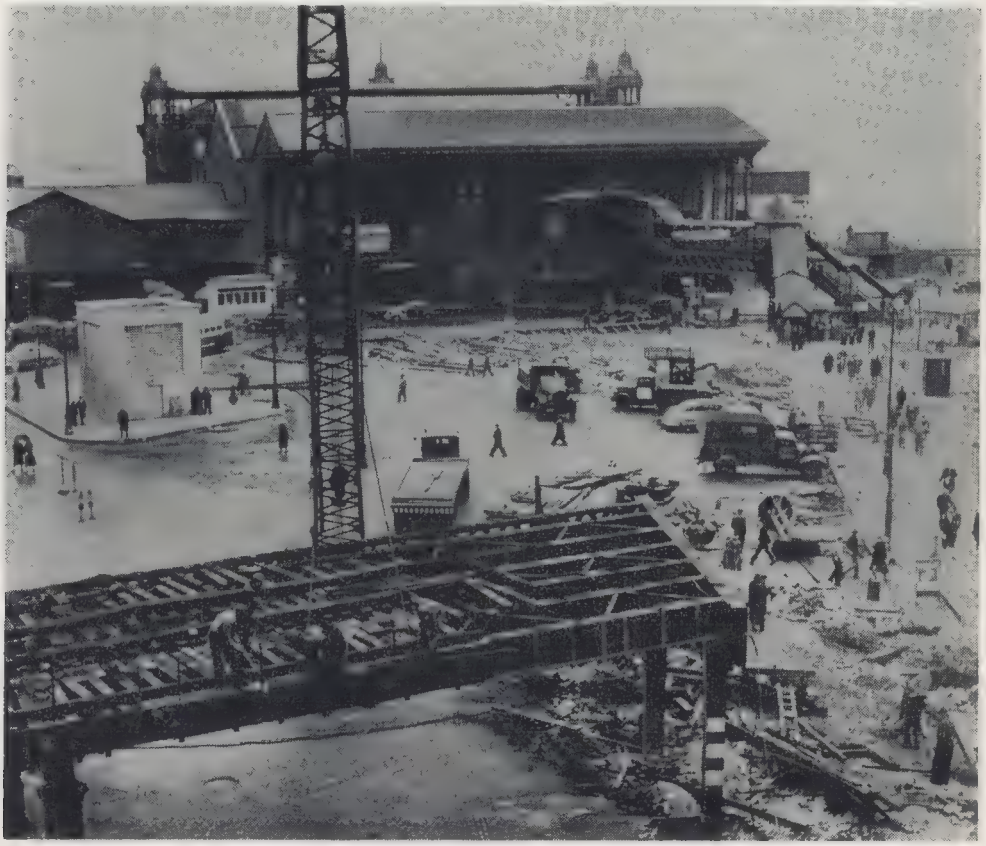
These plans failed because the owners were unwilling to accept the securities of such a board of control unless the securities were supported by the taxing power of the city, which was specifically prohibited by law.

This stalemate was finally overcome by the passage of a constitutional amendment in 1938, which allowed the city to issue $315,000,000 in bonds exempt from the city's debt limit and useable specifically for purchasing the private transit properties.

In 1939 the city signed a contract with owners of the Interborough Rapid Transit Company for the purchase of its interest in the subway properties and with the Manhattan Railway Co. for the purchase of its elevated lines, all for a total of $151,000,000. The city took over the Brooklyn-Manhattan properties on June 1, 1940 and the Interboro and Manhattan companies on June 12 of that year.

Joe Engels, Herald Tribune

Next stop, army ordnance. In scene below workmen put torch to South Ferry section. Uptown portions will follow when money is raised for new Second Ave. Subway. Small, slatted structure at left is ventilator for new vehicular tunnel between Manhattan and Brooklyn



PHILIP R. HASTINGS

WHEN I was in Houston a couple of summers ago I asked the Missouri Pacific's publicity manager what he would consider the busiest rail junction around the Wonder City of Texas. He suggested a spot called "T.& N.O. Jct." on the south edge of the city, where the Texas & New Orleans and the Gulf, Colorado & Santa Fe cross. Although only two single-track lines inter-

The Scene At Tower 81, One of the Busiest Spots in the Houston Area

sect, he assured me that the Rock Island and MoPac trackage rights over the GC&SF and the proximity of the Houston Belt & Terminal's New South Yard would guarantee plenty of action. At dawn next day I was on hand at Houston's Union Station to catch a ride out to T.&N.O. Jct. via the HB&T's *Hurdy*.

I found an HB&T 0-6-0 coupled to a little mongrel open-end coach, apparently of

Employes only. Snapped standing at Houston's Union Station, HB&T's workaday *Hurdy, left,* contrasts sharply with sleek, stainless steel of Burlington-Rock Island *Texas Rocket.* Little 0-6-0 and one coach of uncertain vintage and design make 4-mile run to T&NO Junction daily, stopping at various points to drop off railroad workers

Out at Tower 81 MoPac takes over the crossing with the arrival of Extra 1204 North, off the Gulf Coast line via GC&SF from Algoa. Caboose was lettered StLB&M and MoPac

recent manufacture but built on a style suggesting Civil War vintage. Clambering aboard with a group of railroad workers, I was presently treated to a ride out to the HB&T's South Belt through yards, over rail crossings and past the HB&T engine terminal. The *Hurdy* stopped at frequent intervals for a few railroaders to unload for their day's work and eventually terminated its run at New South Yard, four miles out of Union Station. I took off for the far end of the yard in a hurry because I was anxious to get a picture of T&NO freight train No. 371 from the Victoria Division, which was due imminently. About halfway down the mile-long yard I disappointedly noted a smoke plume crossing the distant horizon in line with the T&NO main. This skunked me for the day as far as T&NO trains were concerned, since, being Sunday, there would be no more T&NO traffic until after I would have to leave.

It helped some to meet the St. Louis, Brownsville & Mexico's varnish No. 16 barrelling into town behind highly polished *Pacific* 1154 a little farther down the yard, and I reached Tower 81 at T&NO Jct. without missing any more pictures. After a glance at the terrain—which included a wide expanse of prairie to the south, east and west and New South Yard to the north—I went upstairs into the tower to meet the operator, with a traffic lineup in mind. The operator turned out to be a conscientious railroader and challenged my trespass of his lofty domain, but quickly became friendly when I showed him my letter of authority from the T&NO Railroad. Mutual introductions revealed him to be Leslie Beeching, a rail veteran of 35 years service—26 at this very tower.

Like most of his co-workers in the railroad industry, he soon waxed enthusiastic over the demands and rewards of his particular job and informed me that his tower averages 83 train movements each day,

Just out of Union Station, *Texas Chief* takes lead to T&NO main at the Junction, Diesel 71 on the head end. Santa Fe has rights over T&NO out to Rosenberg for northbound movements

of which two-thirds are through, and the remainder switching moves in connection with the yard. Each movement involves about 10 changes of the chest-high switch levers, which graphically explained to me the reason for Beeching's excellent muscular development. I was interested to learn that the total number of train movements and of *lever* movements must be reported to the ICC each month.

The first interruption to our conversation came when the T&NO hit the bell. Beeching announced that it would be the Santa Fe *Ranger,* so I hustled downstairs to select my location. Southbound Santa Fe jobs from up Fort Worth way come into Houston on T&NO trackage rights from Rosenberg, and sure enough, Santa Fe Diesel No. 50 soon came down the Espee line with a string of standard cars, and curved onto the HB&T for the trip into Union Station. Hot on the heels of the inbound *Ranger* was another Diesel horn to the south and I had just changed my film when the flashy Sante Fe *Texas Chief* dashed by off the GC&SF from Galveston.

Houston is just another way station for these two Santa Fe jobs. Within the hour I had a chance to photograph them both again, coming back from Union Station—the *Ranger* to head down the GC&SF to Galveston and the *Chief* to go up the T&

T&NO Tower, *below, right,* presides over the passage of trains on intersecting T&NO and GC&SF single track lines at the lower extremity of the HB&T's large New South Yard, four miles south of Union Station. MoPac shares GC&SF trackage, and Santa Fe, in turn, has trackage rights on the T&NO. *Below:* Hastings and camera witness departure of Extra 1201 south on the GC&SF. That's T&NO line in foreground. New South Yard lies at right

NO, northward toward Fort Worth.

Sandwiched between these movements was another outbound Santa Fe passenger, the *California Special,* and this time I was lucky enough to get steam power in the form of a 4-6-2 *Pacific.*

AT THIS point the GC&SF buzzer sounded and Beeching said that he had a MoPac freight coming in off the Gulf Coast Lines for me. He pointed out that 75 percent of the traffic on the GC&SF is actually Missouri Pacific, which has trackage privileges out to its own line at Algoa. The inbound drag turned out to have an unusual twist, for besides its own 2-8-2 engine, No. 1204, it contained 2-8-0 No. 1037 a few carlengths back. Come to find out, Extra 1037 North had run afoul of the 16-hour law some distance down the line and *Mikado* 1204 had been detailed to bring in the crewless train.

To continue the MoPac winning streak, the next train movement past Beeching's tower was another freight extra up from the GCL, this time with Diesel No. 537, for variety. And yet another MoPac job followed—Extra 537 had barely cleared into the yard when passenger Diesel No. 7009 came gunning out from Union Station with the *Valley Eagle* bound for Brownsville.

It was then still short of the noon hour but my time was up, so I mounted Tower 81 for the last time to bid Beeching goodbye with thanks for his hospitality. I had spent only a short Sunday morning there but I had photographed an interesting assortment of Missouri Pacific and Santa Fe activity at T&NO Jct.

Whoops! Photographer Hastings gets leaning tower effect with trick shot. Leslie Beeching, a veteran of 26 years at T&NO Junction, is in command at Tower 81 on the daytime shift. He is looking out the same window from which he was watching a T&NO freight several years ago when a boxcar derailed, piling several cars into the corner of the tower. Beeching reached ground and safety just before structure crumpled

Beeching raises order board for an outbound MoPac freight. Seen through the window, *Mikado* 1201 has just come out from Houston and is about to back onto train in New South Yard. Though Tower 81 is T&NO property, its operator handles trains of all roads going through junction

Her roving days are long over. Sans pilot truck, like an eagle with its wings clipped, Santa Fe ex-*Consolidation* 731 serves as 0-8-0 switcher at New South Yard. HB&T 0-6-0s and Diesel switchers, and MoPac 0-8-0s also work yard

Leverman gets a lungful of smoke as Santa Fe *Pacific* 1293 gets out of town with crummy, after bringing in extra freight

Tower 81 can be seen in middle distance from New South Yard where HB&T Diesels are making up trains for MoPac, Santa Fe, Rock Island, also HB&T transfer drags

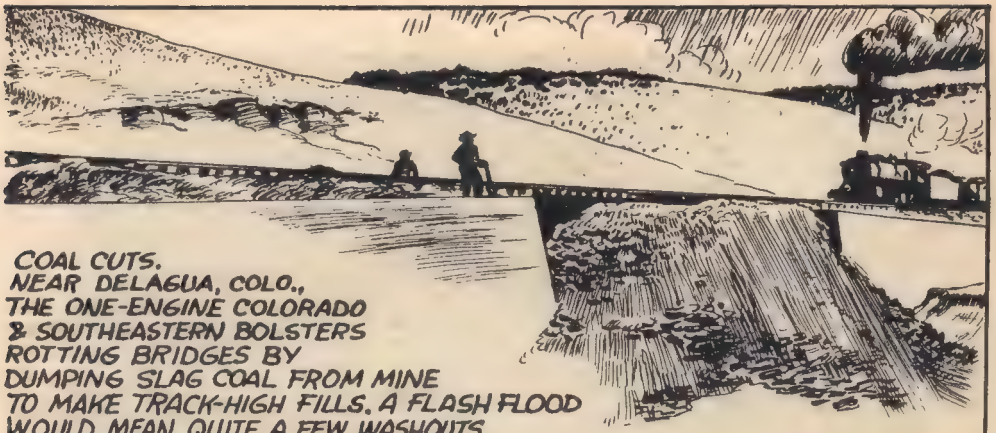
Making ends meet: HB&T Diesel Switcher 14 hooks onto crummy collection representing all the roads using New South Yard—Santa Fe, Rock Island, MoPac

ALONG THE IRON PIKE

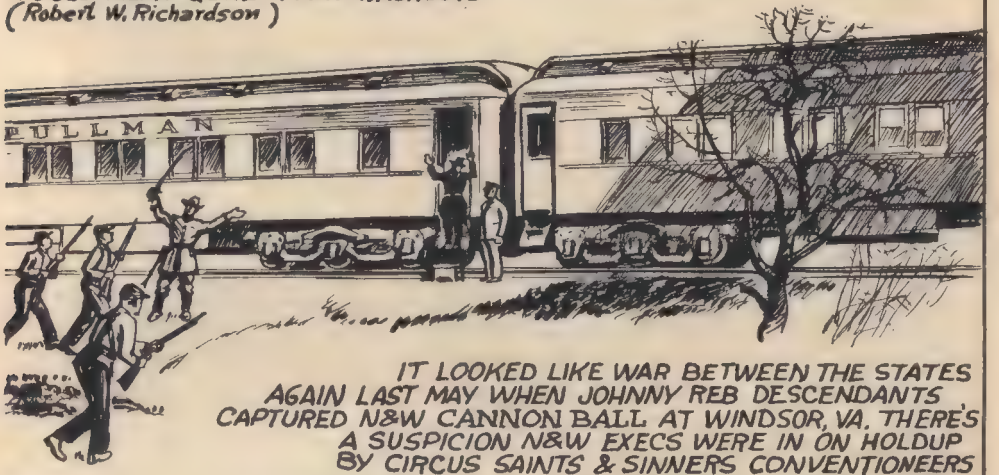
By JOE EASLEY

SNOWMAN'S LOCOMOTIVE WAS CREATED AFTER A HEAVY FALL OF THE WHITE STUFF LAST WINTER BY STUDENTS AT SACRED HEART SCHOOL FOR YOUNG BOYS, RIMOUSKI, QUEBEC. APPROPRIATELY, ENGINE SCULPTURED BY LADS WAS CNR NORTHERN TYPE (CNR Magazine)

WHEN NYC ENGINEER FRANKLIN COLEMAN RETIRED AFTER 47 YEARS OF SERVICE, IT WAS NO ROCKING-CHAIR FOR HIM. INSTEAD HE HIRED OUT AS HOGGER TO PLAYLAND'S MINIATURE PIKE IN RYE, N.Y. PRIVILEGED PASSENGERS RECENTLY WERE BRONX'S FAMED COLLINS QUADS (George Mabie)



COAL CUTS.
NEAR DELAGUA, COLO.,
THE ONE-ENGINE COLORADO
& SOUTHEASTERN BOLSTERS
ROTTING BRIDGES BY
DUMPING SLAG COAL FROM MINE
TO MAKE TRACK-HIGH FILLS. A FLASH FLOOD
WOULD MEAN QUITE A FEW WASHOUTS
(Robert W. Richardson)



IT LOOKED LIKE WAR BETWEEN THE STATES
AGAIN LAST MAY WHEN JOHNNY REB DESCENDANTS
CAPTURED N&W CANNON BALL AT WINDSOR, VA. THERE'S
A SUSPICION N&W EXECS WERE IN ON HOLDUP
BY CIRCUS SAINTS & SINNERS CONVENTIONEERS
AT NORFOLK (N&W Magazine)

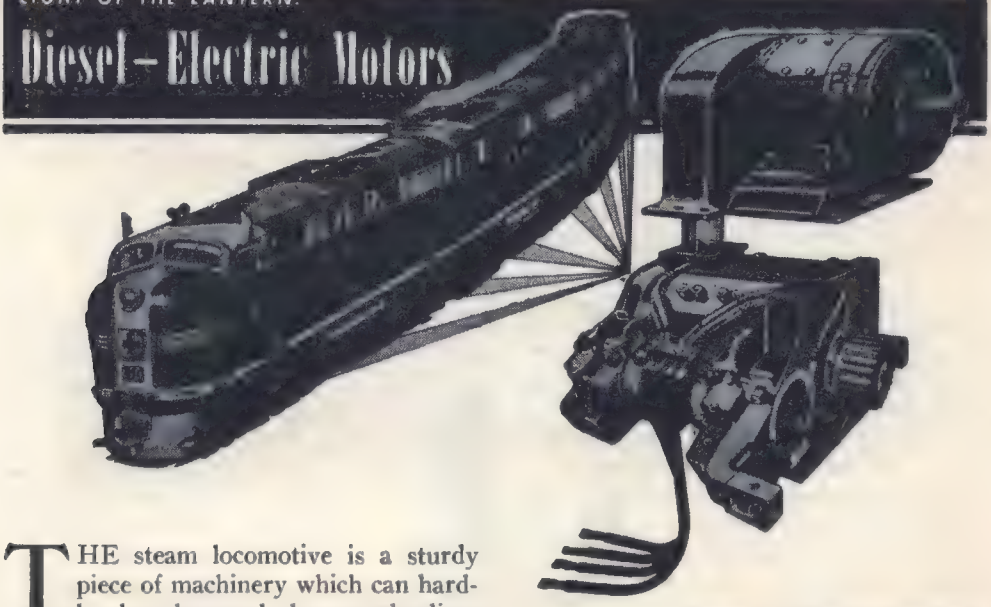
PINCH-HITTER. B&M
CUSTOMER, DOESKIN PRODUCTS,
INC. WANTED TO SHUT DOWN
BOILERS FOR REPAIRS, SO RAIL-
ROAD LOANED THEM BERKSHIRE 4023
FOR STEAM-GENERATING PURPOSES.
FIREMAN AND 20 TONS OF COAL PER DAY
WERE ALSO SUPPLIED BY B&M (A. H. Colepaugh)

Alfred Stieglitz, Courtesy of Chicago Art Institute

Stieglitz, the noted American photographer, took *The Hand of Man* in 1902. One of the first camera studies of railroad steam and smoke, this and 42 other Stieglitz photos were on exhibit at the Chicago Art Institute, whose rear galleries extend over Illinois Central tracks

LIGHT OF THE LANTERN:

Diesel-Electric Motors



Drawings by Henry B. Comstock

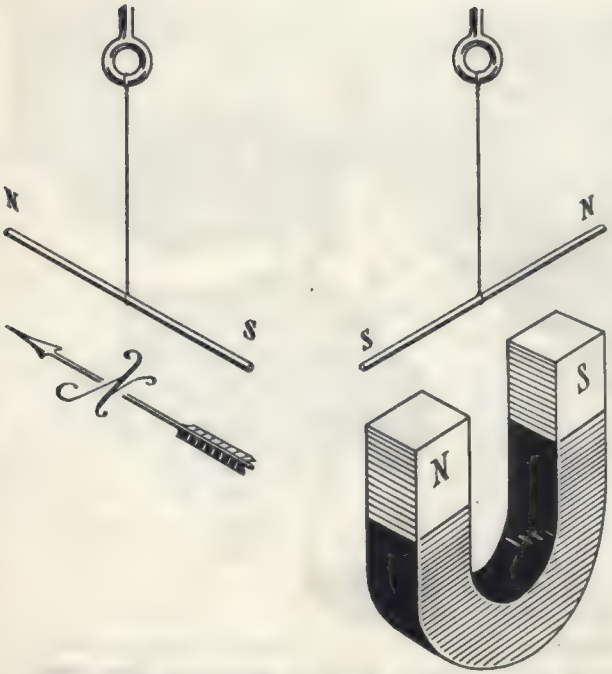
Unlike the steam locomotive, which rarely suffers damage when overloaded, the Diesel-electric has vulnerable traction motors which may be burned out in a matter of minutes. To protect them, designers provide manual or automatic transition, special heat-resisting insulative materials, and blowers, *above*, which send blasts of cool air through the motor housings

THE steam locomotive is a sturdy piece of machinery which can hardly be damaged by overloading. When the tonnage behind it becomes too great to handle, the engine simply stalls for want of enough steam pressure against the pistons, or weight upon the driving wheels to produce the necessary motion.

With a locomotive propelled by electricity we have a different situation. Today's traction motors are masterpieces of engineering, designed to stand up under 75 percent overloading for short periods of time. This is an excellent quality, for it affords rapid acceleration and the added power needed on heavy grades. But the fact remains that it is something of an Achilles' heel. If we overwork an electric motor beyond the time allowed by its design, it will become overheated and burn out. When this happens the entire unit is thrown out of service and the replacement expense is tremendous. A motor properly cared for will last for years, while one neglected by an inexperienced crew can be damaged beyond repair. In this article we will see what builders have done to protect their product from such failures, but first let's study a simple motor and learn just how it works.

Last month we outlined the basic principle of the generator and stated that a motor is a generator operating in reverse. By that we meant that instead of manufacturing electricity it receives current from an outside source and uses it to rotate a core or *armature* which produces work. In the case of the Diesel-electric the end of the armature is geared to a driving axle, turning it forward or backward and at various speeds, as the occasion demands. Behind the ingenious performance of this and all other motors is the application of a fundamental property of magnetism.

We are all acquainted with the simple bar magnet and its ability to attract other pieces of iron and steel. Such bars are known as permanent magnets, for they need no outside force to aid them in this



Suspend a magnetized bar on a string and one end will swing around and point directly toward the earth's magnetic north pole. Place another magnet beneath this bar and the north and south poles of the suspended magnet will be attracted by the unlike poles of the lower magnet

attraction. Glancing at the first of our diagrams we see a permanent magnet in the form of a piece of wire, suspended at its center by a string. If we give it a spin it will eventually come to rest with one of its ends pointed north and the other south, like the needle of a compass.

Now, if we place another permanent magnet beneath it, the north pole of the suspended magnet will be drawn toward the south pole of the one we are holding in our hand. Reverse the second magnet and we create the opposite effect; in other words, the suspended magnet will swing away. We have just proved to ourselves that unlike poles attract, while like poles repel. Now rotate the lower magnet and the one on the string will follow its motion. That is what we do in designing a motor, except that by the introduction of electricity as a magnetizing agent, we are able to change the polarity of what corresponds to the suspended magnet, each time it makes a half-revolution. When we do this, it is no longer necessary to turn the larger magnet to produce rotating action.

RETURNING to our previous article, we know that we can make a temporary magnet simply by winding an insulated wire around a soft iron bar and passing current through the wire (second drawing. If we shut off the current, the bar is immediately demagnetized. What is equally important, if we reverse the flow of electricity through the wire—that is to say, switch the two ends of the wire so that what had previously been the positive connection to the battery or generator becomes the negative connection and vice versa—the north and south poles of the magnetized bar are immediately reversed.

In our third diagram we have pictured a simple, direct-current motor. By bending an electrically magnetized bar into a horseshoe, we place its north and south poles directly opposite one another. And, because we want the polarity of this *field* to remain constant, we attach the ends of the wire directly to the positive and negative outlets of our power source.

Set between the two poles of the field is a smaller bar of iron, similarly wound, and having a hole through its center, through which passes a tightly-fitted shaft. The resulting coil and shaft must then rotate between bearings (omitted in the drawing, for the sake of clarity) in such a way that neither end of the rotating bar quite touches the ends of the field magnet. Now, if we were to pass current through the rotating magnet and give it a starting spin from dead-center position, this *armature* would swing around until the unlike poles of both field and armature were in direct alignment. There the rotating action

would stop. What is needed, then, is some way of reversing the polarity of the armature at this point, so that the repelling action of like poles will send it on its way toward a second half-revolution.

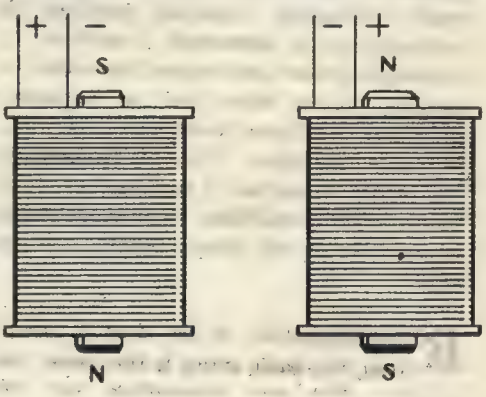
To do this we provide a form of rotating switch called a *commutator.* This is a drum, made of an insulative material, press-fitted onto one end of the shaft, inside the bearings, and having two copper plates, *commutator segments,* mounted on its outer surface, with slight insulating gaps between them. Now, instead of connecting the ends of the armature wire to the power source, we solder one end of the wire to each of the commutator segments.

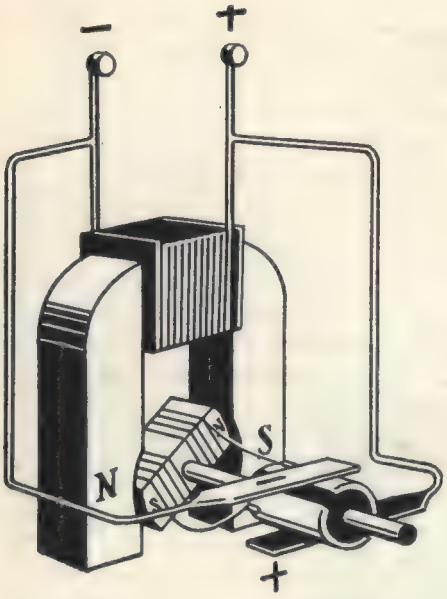
The next problem is to get current to the segments and this is done by bringing the wires from the positive and negative outlets of the battery or generator to two contacting surfaces, or *brushes,* one located on either side of the commutator. One brush delivers positive current to one of the segments, which, in turn, sends it on through the armature winding and back to the second segment, where it is returned to the other brush and the negative connection on the power source. The armature immediately swings around to align itself with the unlike poles of the field magnet. But just as it reaches that point, the brushes contact the opposite segments of the commutator, which is also rotating, and the polarity of the armature is reversed. On it spins to complete a full revolution, only to have the same thing happen again. Our motor will continue to run until the current is shut off.

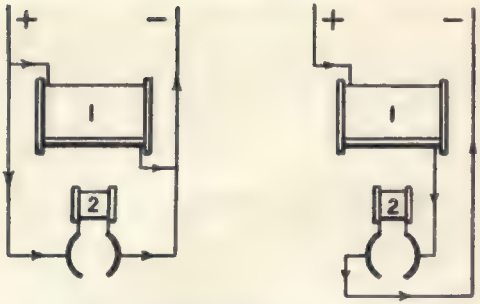
OF COURSE, the machine we have just described is highly inefficient. The armature must be spun by hand to start the rotating action, and there is no inherent direction of rotation—the armature will run either clockwise or counterclockwise, depending on how we start it turning. Too, its motion is far from smooth, as magnetic attraction varies from zero to full force twice during every revolution. But by increasing the number of coils in the armature, with a corresponding increase in the number of commutator segments, we can produce a powerful, self-starting machine with a nearly constant turning speed and a predetermined direction of rotation. The latter being the case, reversing the motor is a simple matter; all we have to do is to switch the polarity sequence of the armature (reverse the flow of current going to the brushes from the power source), while leaving the polarity of the field unchanged.

We can do one more thing to increase the power of our motor. As it stands now we are sending one set of wires from the power source to the field and a second set to the armature. In electrical lingo this is called a *parallel circuit* and may be likened to diverting the flow of water from a pump to two feeder pipes. Each flow will, of course, retain the original pump pressure, but the original volume of water will be halved. Substituting the term *voltage* for pressure, and *amperage* for volume, we find that we are using only half of the amperage in our battery to energize the field, the other half going to the armature. However, by running our positive wire to one end of the field, letting the current pass through its windings and then continue on through the armature and back to the negative connection on the power source, we send the full amperage of the battery or generator through both, doubling the power of the motor. At the same

When a length of insulated wire is wound around an iron or steel core and energized, the core becomes a magnet. Reverse the direction of current through the wire and poles of the magnet are similarly reversed







The electric motor makes use of the repelling action of like poles and the attraction of unlike poles, to produce rotary motion. The revolving switch contacts *(brushes* and *commutator segments)* of the basic motor, *left*, reverse the polarity of the inner magnet *(armature)* each time the shaft makes a half revolution. If we feed current directly to the field coil *(No. 1)* and to the armature coil *(No. 2)*, both will receive full voltage but only half the amperage available at the power source. Result: A fast-turning but relatively weak motor. By sending all the current, first through the field and then through the armature coils, the motor characteristics are reversed

time, though, the voltage passing through them will be halved, resulting in a loss of speed. This hookup is called a *series* circuit.

This brings us back to our Diesel-electric locomotive and the possibility of overloading the motors when an engineer starts his heavy train or climbs a steep grade. To make use of the characteristics of series and parallel circuits, not within the individual motors but in the delivery of power to a number of traction motors, our designers have developed what is known as *transition*. This control arrangement, which trades amperage for voltage, or the reverse, depending upon whether power or speed is needed, may be automatic or manual. Generally speaking the railroads prefer automatic transition for passenger power and manual transition for freight. In the latter case, an engineer's judgment is believed better than that of an arbitrary machine. This is particularly true when an engine is running for a hill. Under such conditions a speed-governed changeover to full power might come too soon.

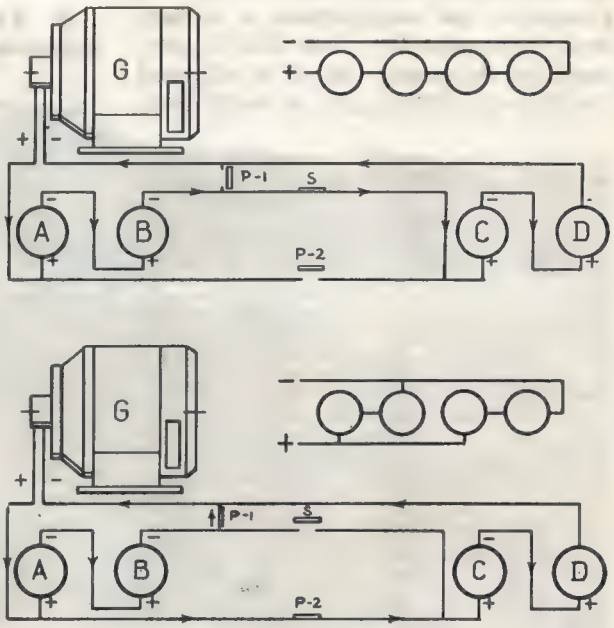
REGARDLESS of the form of transition, the basic setup is the same. Assuming that our locomotive has two trucks, each equipped with two traction motors, the two motors of each truck will always be permanently connected in series. But the throttle is provided with two control positions. No. 1, or *series position*, (fourth diagram, first drawing), provides a flow of power, at full amperage, through the motors of one truck, and on through those of the second, then back to the generator. This is the position used to get under way, or to buck the big hills, and may be likened to opening a steam locomotive's throttle wide, with the reverse lever down in the corner. We are now overloading our motors, and care must be taken not to run the engine too long in *series position*. When that happens the resistance in the coils generates heat which will quickly melt soldered connections and burn off the insulation.

Number 2, or *series-parallel position*, so named because through a system of switches we split the flow of current, sending half of it directly to the two motors on one truck and the remainder to those of the other truck, relieves the overloading condition by halving the amperage to

the individual traction motors. This is normal running position, and compares to notching up the reverse bar on a steam locomotive. Conversely to the drop in amperage, we have doubled the voltage, bringing it up to half the rating of the generator. That spells greater speed for our Diesel-electric (fourth diagram, second drawing).

So far, we have considered motor protection only as related to the volume of current. But engineers have not overlooked other bets. It is a well known fact that an electric or Diesel-electric locomotive performs best during moderately cold weather. Nobody has yet attempted to provide motors with artificial refrigeration, but all Diesel-electrics are now equipped with highly efficient blowers which send steady blasts of air, at atmospheric temperature, through the motor housings. Powered by husky motors fed from an alternator or auxiliary generator—a few are directly connected to the Diesel engine crankshaft—the blowers are located on the engine-room floor, and there may be two or four of them, depending upon the builder. In the former instance a slit duct is provided to the trucks through the centerpin castings, or by means of flexible bellows. It is the job of these blowers to maintain a motor temperature not exceeding 275 degrees Fahrenheit, that being the danger point for insulation and commutator connections.

When power is needed at starting or on heavy grades, the engineer puts his controller in No. 1, or *series* position. Parallel switches *P-1* and *P-2* open, and series switch *S* closes *(top)*, sending full amperage to all four traction motors. For higher speed, on nearly level track the engineer moves the controller lever on to No. 2, or *series-parallel* position. Parallel switches *P-1* and *P-2* are now closed, and series switch *S* is open *(lower drawing)*, sending half of the generator amperage to the two motors on one truck and the remainder to those on the other truck. This doubles the voltage received by each motor. Motors *A* and *B* are permanently connected in series, as are motors *C* and *D*



In the laboratories there is a constant search for insulative material which will be more resistant to heat. So far, silicon shows the best performance. Even so, great care must be taken when working motors in *series,* and blowers must always be in perfect operating condition.

Coming Next Month:

Diesel Engine Design

America's four top Diesel locomotive manufacturers put out four basically different power plants. In our March technical article we will compare these Big Four designs—with explanatory mechanical drawings by ex-*Railroad* editor Henry B. Comstock

INFORMATION BOOTH

Q *How many parts in a modern steam locomotive? And in a 2000-horsepower Diesel-electric?*

A While the number of parts in a railroad engine varies with the type of locomotive and construction, a modern steam locomotive has about 25,000 parts, excluding the tender, while it is estimated that there are 70,000 parts, or nearly three times the number, in a 2000-horsepower growler.

Q *When were refrigerator cars first used? When was the first rail shipment of bananas made?*

A The first refrigerator cars began service on the Northern New York Rail-

road (now part of the Rutland), on July 1, 1851 when 8 tons of butter were moved from Ogdensburg, N. Y. to Boston in a wooden boxcar insulated with sawdust. The banana was well-known to New Orleans in the 1860s, but people said it was too perishable to ship north. However, in 1880 enterprising banana men shipped 22 carloads of bananas north via the Illinois Central.

Q *When did the word "locomotive" first come into use?*

A Following the introduction of George Stephenson's experimental engine, the *Locomotion,* in 1825.

Each month the Lantern Department prints answers to rail questions of general interest submitted by our readers. We do not send replies by mail.

Q *What is an "engine burn"?*

A When the driving wheels on a locomotive start spinning or slipping in a effort to get under way, the result is what railroaders call an *engine burn.* When wheels start slipping, they will make several revolutions after the throttle is closed. This is enough to make the sparks

In quantity of parts, today's Diesel, such as the Santa Fe's *El Capitan* in Ratan Pass near Morley, Colo., outdoes a modern steam locomotive. A 2000-hp. Diesel-electric, for instance, has 70,000 parts to a steamer's 25,000

Santa Fe

fly and wear a deep depression in the ball of the rail under each wheel. The remedy lies in the proper use of sand by engineers. Wet rails burn just as deeply as dry ones. The burns are frequently the cause of cracked rails. Engine-burned rails also cause vibrations and pounding, damaging the roadbed and track structure. Engineers operate a sanding lever, which carries sand of a specially-prepared type, from the sand dome on top of the engine through pipes to the top of the rail. Sand pipes operate in front of driving wheels and they are also located behind wheels for backup movement.

Q *What was the matter with the Union Pacific steam turbine locomotive of nine years ago?*

A The condenser threw this engine out. The turbine couldn't condense enough steam.

Q *Do you have any information on the first locomotive purchased by the Nashville & Chattanooga Railroad?*

A The first piece of motive power on the Nashville & Chattanooga, predecessor of the Nashville, Chattanooga & St. Louis, was built by Harkness & Son, of Cincinnati. It bore the name *Tennessee,* and was of the 4-4-0 or *American* type, weighing 20 tons. Its entry on the lists of the Nashville & Chattanooga is dated Christmas Day, 1850. This locomotive was shipped by steamboat down the Ohio River and up the Cumberland to Nashville, where it was dragged by mules through the streets of that city, from the steamboat landing to the tracks of the railroad. This difficult piece of work was witnessed with intense interest by the citizens of Nashville. On April 9th of the following year the *Tennessee* drew the first train 9 miles from Nashville to Antioch, where it was greeted by a crowd estimated by one eye-witness as "ten acres of people."

Southern Pacific

Refrigerator cars now are a far cry from the Northern New York Railroad's pioneer vehicle, a wooden boxcar insulated with sawdust and loaded with 8 tons of butter in 1851 trip from Ogdensburg to Boston

Q *During the last half of 1950 the Peoria & Eastern, which had been operated entirely with steam power, was completely Dieselized. I'd like an account of the changeover.*

A The New York Central spent approximately $2,600,000 for 21 road and yard switching Diesel-electric locomotives for the P&E, which runs over 211

miles of line between Peoria, Ill. and Indianapolis. This equipment was built by the Electro-Motive Division of General Motors. Fourteen units were 1500-horsepower road switchers and the other seven were 1200-horsepower yard switchers. The P&E Dieselization program included conversion of existing steam facilities and construction of some additional ones for maintenance and servicing at Urbana, Ill. Eight of the 1500-horsepower engines are employed in through freight service between Brightwood, Ind. and Peoria. One of the 1500-horsepower Diesels is operated in passenger service, making the trip from Peoria to Indianapolis each morning and from Indianapolis to Peoria in the afternoon.

Q *Do you know what happened to the Maxton, Alma & Southbound Railroad?*

A Incorporated under North Carolina laws on February 21, 1911, the Maxton, Alma & Southbound, on June 1, 1911, purchased the entire railway holdings of the Alma Lumber Company, extending from Alma to Midway, N. C., 7.6 miles. The MA&S operated 15.07 miles of road from Alma to Rowland, N. C., with 2.61 additional miles of yard track and sidings. Connection was made at Alma with the Seaboard Air Line Railway. The road was standard gage, laid with 50-pound rail. On January 15, 1937, the ICC authorized the company to abandon its entire line in Robeson County, N. C. The road ceased operations in August, 1937. At the time of abandonment there were 8 employes, 2 steam locomotives and 5 passenger cars.

Q *What was the first use of air-conditioning on railroad cars?*

A Although the New York & Erie Railroad made an attempt to air-condition passenger cars in the early 1850s, the history of air-cooling of railway passenger cars really began in 1926, when the Pullman Company authorized experiments with a forced draft ventilating system on one of its cars. Testing of mechanical air-conditioning was conducted until September 9, 1929, when the *McNair*, the first air conditioned sleeping car, was put into service between Chicago and Los

Ray Peterson

Engine burn **occurs when a locomotive's drive wheels spin or slip in getting underway, wearing a depression in the ball of the rail under each wheel. Steam engines are worst offenders, because drivers may spin even after throttle is closed**

Angeles. An ice-actuated air-cooling system was applied and manually controlled. This car was the forerunner of more than 5000 air-conditioned Pullman cars in service today and was actually the first successfully operated, fully air-conditioned car of any kind operated on any railroad. By January, 1951, there were 17,360 air-conditioned cars in operation.

Average costs of air-conditioning systems installed now range from $5000 to $10,000 a car, depending mainly upon the type in installation.

Q *Please give me some information concerning the Philadelphia, Newton & New York Railroad. Is it now part of the Reading's Newtown Branch?*

A This company was incorporated under the laws of Pennsylvania on November 28, 1876, as successor to a company of similar name incorporated on November 21, 1860, and sold under foreclosure October 4, 1876. The road was opened for traffic between Cheltenham and Newton, Bucks County, Pa. on February 2, 1878. Operations were assumed by the North Pennsylvania Railroad on November 22, 1879, the latter line having been leased to the Philadelphia & Reading Railroad for 999 years, from May 1, 1879. The North Pennsylvania was chartered October 2, 1852, and the 55.60-mile-long main line between Philadelphia and Bethlehem was opened on July 7, 1857. The Philadelphia, Newtown & New York was merged with the Philadelphia & Newton Connecting Railroad in 1892. The line is controlled by the Reading through ownership of a majority of the capital stock. The PN&NY is run by the Reading under terms of an operating contract dated October 29, 1928 and effective January 1, 1929. The Reading takes all receipts and pays all expenses, including interest, taxes. There are 22 miles of first track, nearly 3½ miles of second and over 2 miles of third, plus

Some lumber roads had odd rigs, perhaps a 1923 *Studebaker* or two to haul mail and supplies to the logging camp. When the Maxton, Alma & Southbound Railroad folded 14 years ago in North Carolina, it had 8 workers, 2 locomotives, 5 coaches and a fistful of bills

John F. Larison

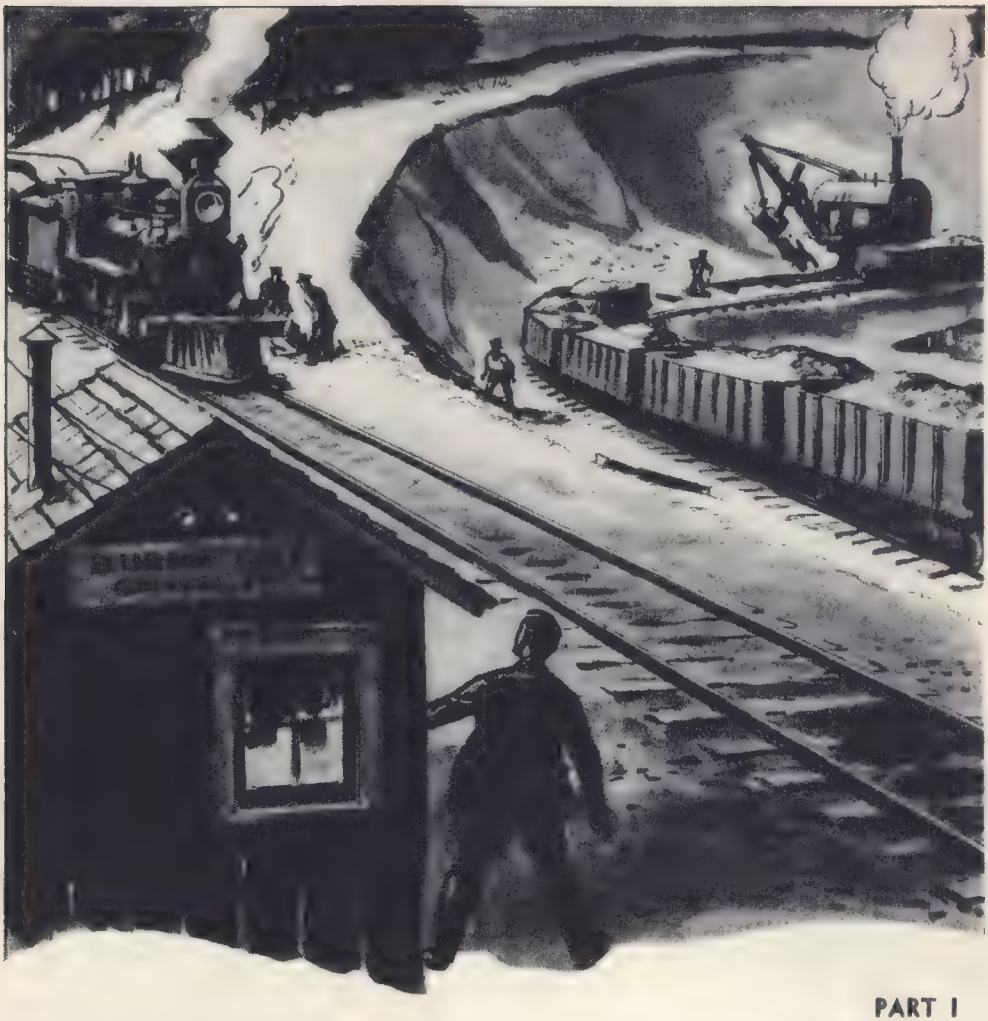
Arthur M. Cox, Sr.

First air-conditioned passenger car in the world was Pullman's *McNair*, a sleeper between Chicago and Los Angeles introduced in 1929. It was No. 101, here at Salt Lake City on a 6000-mile fantrip

nearly 6 miles of yard track and sidings, laid with 90- to 159-pound rail.

Q *What is the longest non-stop passenger run in the United States?*

A The longest non-stop sprint is made by the Southern Pacific's westbound *City of San Francisco,* between Carlin and Sparks, Nev., 288.3 miles, at an average speed of 70.1 miles per hour.



PART I

The GENERAL MANAGER'S *Story*

By E. G. BURDICK as told to Bill Knapke

LIKE MOST boys my earliest ambition was to be a railroader; but where usually they grow up to become lawyers, business men or to enter some other avocation far removed from the shining rails, I adhered firmly to my youthful choice—a resolution that carried me far from my childhood home and through many scenes and places then undreamt of.

I was born February 28th, 1869 in Portville, Cattaraugus County, New York, 72 miles southeast of Buffalo. My father worked in Weston's Mills, a village adjacent to Portville. He was the youngest of four brothers who served

. . . but next day the baby was as good as new, playing on the tracks again

Put a Boy in School With Trains Nearby And What Do You Get?—Brasshat Material!

with the Union Army in the Civil War on an enlistment of three years and eleven months. All the brothers returned, one much the worse for wear after eleven months in Andersonville prison. My dad, however, had better luck than his brothers, for on one furlough he brought home a bride, a Confederate daughter from North Carolina.

Our home was not far from the tracks of the Buffalo, New York & Philadelphia Railroad (now Pennsylvania) with rails extending from Buffalo, N. Y. to Emporium, Pa., where it connected with the Pennsy main line. The railroad right-of-way was close to the little one-room school which I attended; too close, I'm afraid, for from the time that one of the frequent trains came within hearing distance till it passed beyond, each scholar's attention was focused on that train to the complete neglect of his or her books.

I can remember as though it were yesterday, the hollow exhausts of the little diamond-stack locomotives, the rattling crash of car wheels over the loose rail joints, and the heady, pungent smell of wood smoke that drifted in through the open windows. It was during that time that my resolution to be a railroad man became fixed. I was too young and too small to have any chance of entering train or engine service; but, I told myself, there is no reason why I can't become a telegraph operator.

There was a family friend, Frank D. Voorhees, who was night telegraph operator at Portville and though it was quite a long walk from my home to the telegraph office, I became a regular fixture there, and, I expect, a nuisance. But our friend initiated me into the mysteries of telegraphy.

Morse telegraphing is much like music in some respects. Some can hear a piece of music played and then sit down at a piano and play that piece, even though they haven't the slightest knowledge of music. So it is with the telegraph sounder. To one, the clickety-click of the instrument soon becomes clear-cut speech; to another, it is ever a meaningless babble of noise. Fortunately for me, I was in the former class so it wasn't a great while until I could send and receive fairly well. Though by no means a finished operator, I was good enough to apply for and get a job with the Postal Telegraph Co., which at that time had no offices west of Chicago.

A guy didn't have to be very skillful to hold a job, for operators were a scarce commodity. A Mr. Tarbell was manager of the Postal and though I was but fourteen years of age, he tested me on the wire, then hired me for the office at Olean, N. Y. The salary was thirty-five dollars per month, which was money in those days. Later in the same year I worked at various other Postal offices, and at a couple of Western Union offices. Don't ask me how or why I changed, for there are plenty of things that I can't connect up away back then. Remember, I was just a harum-scarum kid who never saw more than a day ahead and forgot everything two days behind.

Anyhow, I had learned telegraphy to work on the railroad, rather than in some doggone city office, so when I heard the BNY&P was re-opening Burnt Hill gravel pit, situated near my home at Weston's Mills, I at once applied to the chief dispatcher for the job as operator. As I applied by wire and had become a pretty fair operator, the chief had no idea that I was a fifteen year old kid, and he hired me.

An old-time locomotive engineer, E. L. (Dad) Stearns, had charge of the pit, steam-shovel and work train during the period of pit activities, and as he had known my family and me for years, he naturally looked out to see that I made no mistakes. I had a little, doghouse sort of office, painted a brilliant red and measuring about six feet by six feet, but I wouldn't have traded it for the fanciest office on the whole railroad because it was *my* office.

It was from this office that I witnessed an event, so near tragic that I have never forgotten it. About 4 p.m. one day, I had copied and delivered an order to the crew of the gravel train. The fast mail was just about due, so the work train remained in the clear until it passed. I was idly gazing out of a window watching the trailing plume of smoke from the fast-nearing mail that was still hidden from view by the banks of a cut not very far from the switch. The locomotive shot out of the cut and immediately a shrill blast of its whistle woke the echoes. Startled, I looked to see the cause and there, sitting in the center of the track, playing with pebbles and totally unconcerned was a two or two and-a-half year old kid. The child was facing west and the train was coming from the north.

It was too far for me to get to the youngster, and while the brakemen acted promptly setting the hand brakes and the steam jam on the engine held hard, the speed of the train was too great to permit stopping in that short distance. I

saw the fireman scrambling frantically over the engine's running-board in an effort to reach the pilot from which, with luck, he might scoop up the babe, but he didn't quite make it. The engine struck the child and I've never forgotten the sight of that infant going up in the air and sort of keeling over and over in its flight. It landed beside the rails, but entirely clear of the wheels which had almost come to a stop.

Crew and passengers swarmed about and soon the mother came running from her home near the tracks. I don't remember if the child was even knocked unconscious, but in any event it was back again next day playing on the track.

THE GRAVEL pit was closed in June 1884 and I was ordered to report at Larabee, Pa., a junction with the Coudersport & Pennsylvania Railroad and not very many miles from Portville. I was night operator and had been there about one month when the agent, a chap named McClure, reported me to the chief dispatcher for failing to load an unimportant piece of freight on an early morning train. I received a message from the chief to report at his office in Buffalo. The message read, "Operator Burdick will report to office of chief dispatcher at once." I entered the chief's office, laid his message before him and waited. The chief read it, glanced at me, looked toward the door, then inquired:

"Where's operator Burdick?"

"Right here, Sir," I said.

"WHAT!!" (in an astounded voice).

"Yes sir," I repeated (very meekly).

"How old are you?" was the next question.

"Lots older'n I look," I assured him.

"No doubt!" (in a very dry tone).

"I'm getting towards eighteen," I offered.

"What was the trouble at Coudersport, young man?"

"I forgot to load a piece of freight on the morning train and Mr. McClure was angry about it," I explained.

"You are a very poor operator," said the chief.

"Reckon I am," I said.

"Well," said the chief, with a little twinkle in his eye, "McClure's no better operator than you and I've learned the freight was of little importance. But don't do it again—it might cost you your job next time. I'm going to send you to South Wales as night operator." That was my first session on the carpet but not my last by a long shot.

South Wales was a station a few miles south of East Aurora and about 25 miles from Buffalo. The division superintendent, H. Dyer, resided there, commuting daily to his office in Buffalo by train. In order to make us night operators stay awake, the "six system" was in vogue. At 10 p.m. and every half hour until 6 a.m., the dispatcher would send *six,* which would be repeated by each operator in station order along the road. This system created more liars and cock'n bull stories than anything I ever knew of. We would take turns *sixing* for some half-dozen other operators at various stations, while those worthies were indulging in shut-eye.

That worked fine until one night when the dispatcher wanted Operator Chapin at East Aurora for a train order, and though he had received a *six,* ostensibly from Chapin, just a minute before, he couldn't get any further reply. In this case he was able to put the order out at another station without delaying a train. Later the same night, the dispatcher had an important message to be delivered to the general manager, who was on a passenger train soon due at East Aurora. The dispatcher must have become suspicious, for he waited until he received the supposedly East Aurora *six,* broke the sixing of the other operators to send the message and of course got no answer. That tore it, and the investigation that followed resulted in operator Chapin moving to fresh fields and pastures new. Some of the rest of us were severely reprimanded and it wasn't a great while until the six system was discarded.

I remained with the BNY&P long enough to work at more than half of its stations, usually on the night shift. One of the jobs was at Machias Junction. While there I had what was to me a hair raising experience. The town was about one mile from the station, the State Asylum for the Insane being located halfway between and on the shore of beautiful Lime Lake, a popular resort during the summer. About 3 a.m., the hardest time for a night man to stay awake, a face appeared, pressed tightly against the window, grinning, no hat, black bristly hair standing almost straight up, vacant eyes staring and a vacuous grin displaying big yellow teeth.

Oh Brother! I quit being drowsy real sudden. I was scared stiff but somehow realized it was no time to show it. I forced myself to walk out of the office, opened the waiting room door and invited the young man in. He was apparently in his early twenties, coatless and barefoot. Altogether an unprepossessing visitor. I knew at once that he was an escaped inmate of the asylum and in the conversation that followed he admitted it but added that he was almost cured. He said "they" had taken his brains from him but had promised to return them in a few days and then he would be all right.

That story didn't contribute much to my peace of mind, particularly because the chap was nearly twice my size and weight. I decided the best thing to do was to try to keep him in a good humor and try to keep him in the waiting-room until a morning passenger train arrived and I could get the train crew to help me return him to the asylum. But I couldn't keep his interest and before the train arrived my scary visitor wandered off, and the last I saw of him he was wending his way down the branch line toward a little town named Salamanca. I might add, I wasn't altogether sorry to see him go.

AT THIS station, Machias Junction, was one of the original train signals from which the present term "highball" descends. It consisted of a high mast placed near the juncture of the two tracks, with a long pivoted arm at the top. From each end of this arm was suspended a large wooden ball. Sometimes a sort of basket was used instead of a ball. Such was the case at Machias Junction. The long arm could be tilted to lower one ball and raise the other. When the ball was lowered it meant *stop* to the train on whose track it was displayed; conversely, of course, the high ball meant proceed. The tilting was controlled by the operator with a rope at the base of the mast. I still wonder how I kept from getting trains in collision with each other, for when I'd hear an engine whistle I would dash madly out to change the signal. Luckily I guessed right each time.

Did I mention that minimum pay for telegraphers, at that time, was $40 per month? A very few jobs paid up to $45, but they were all held by the older employes and there was not much chance for a young fellow like me to get one of them. So when the BR&P offered me $45 a month, I upped and went over to it.

I was sent to a little Welsh town named Freedom, N. Y., not far from Machias Junction. I boarded and roomed for $13 a month with a grand Welsh family where the agent also roomed. This family had a "sugar bush" on their property. A sugar bush, if you don't happen to know, is a grove of grand maple trees which are tapped during the spring months when the sap flows freely. I sure enjoyed drinking the clear, sweet fluid and eating the nice warm sugar.

However it wasn't long until my feet started itching and I found myself in Buffalo with the old Postal Telegraph, then with Western Union Telegraph. The latter placed me in the general office of the Anchor Line Steamship Company, which was located at the foot of Evans Street on Lake Erie wharf. This company had a private wire around the lakes to keep them apprised of the movement of their boats from port to port.

Their passenger steamers operated as the Lake Superior Transit Co. and they also operated a large fleet of canal boats on the Erie Canal between Buffalo and New York City. The president of the company was a gruff old Britisher, E. T. Evans. When I'd take a rush message to him, he'd have me wait until he read it and then dictate an answer; and when I'd remind him that I wasn't the "crooked pencil" guy, he'd bawl me out for not keeping up with his dictation. His private secretary had adjoining offices and the secretary suggested that I learn a bit of shorthand and fool the old coot. So I did, and I reckon I can write about a hundred words a minute right now.

It didn't take a great while for that job to become tiresome and I moved over a few blocks to the Delaware, Lackawana & Western. They sent me out to their big general yard office at East Buffalo. Barney Mulvaney was general yard dispatcher. It was quite a yard. The operators handled the switch trains between East Buffalo and Black Rock, where freight was transferred to the lake boats. We travelled back and forth on the work coaches, night and mornings, 12 hours a day, 365 days a year; but before long General Manager F. A. Seaburt took me into his office at the foot of Main Street, Buffalo, saying he hoped to make something out of me.

This was a night job with not a great deal of work attached, so I had ample time to visit with my friend of a lifetime, Jim Howard, who was train dispatcher for my old railroad, the BNY&P. After being relieved at midnight he'd walk over to my place and we'd talk back and forth, making great plans for the future, most of which had the great western country for their fulfillment. We wrote to both the Northern Pacific and the Great Northern Railroads.

Both roads wrote us to come, at 60 dollars per month. We both wanted to go, but it was a long way from home and so we hesitated, fearing the unknown. However, one night Jim came stumbling in and stated he was ready to go, right now, because he had been fired from his job. I don't remember why, but in all probability it was for issuing a lap order and causing a collision between trains, something that was easy to do at that time, owing to the hit-or-miss system of issuing train orders then in vogue. I imagine that must have been the cause, for while Jim worked as an operator for many years thereafter, he never again dispatched trains. Whatever the cause, when Jim said he was ready to leave, I wrote my resignation and left it on the general manager's desk. But I couldn't get away that easy—Mr. Seaburt called me in and bawled me out something scandalous, telling me that I would have to give the required two weeks' notice before he would release me.

It was in April 1889 that we finally started, with Chicago, Ill. as our first stop. We were riding on railroad passes furnished us by the general agent of the Nickel Plate, Charley Lowrey, the final destination on our passes being St. Paul, Minn. We played around Chicago a few days and then went on to St. Paul, where we were sure we'd go right to work. When we arrived at the superintendent of telegraph's office on the Union Pacific we found several more operators waiting to be interviewed, and much to Jim's and my surprise the whole bunch of us were taken in and given a wire test.

PROBABLY that super had learned by sad experience that a lot of guys who called themselves operators couldn't fill a job. Maybe he had something there, for believe it or not, from the seven of us tested I was the only one he would hire. I've always figured that most of those lads were as proficient as I was, and I knew Jim was better. Fact was, of course, my nerves were better; the others were all rattled, while I didn't have sense enough to be afraid. Anyhow, the super said, "Young man, you will report to Mr. Critz and he will arrange to send you out." I thanked him but declined the job unless Jim was also hired.

We decided that St. Louis, Mo. would

be a good town to visit and almost bought passage on a Mississippi river boat for the novelty of that form of travel; but we finally decided against it because our money was beginning to run low. Everything going out and nothing coming in had began to worry us. We hadn't yet learned the boomer's code, "Live today, let tomorrow take care of itself", though it wasn't a great while thereafter until we were well versed in that simple philosphy of the careless road. Having decided against such extravagance as paying for transportation, we got squared out on some railroad, the name of which I can't remember, but we rode a train to Barstow, Ill. on it. I feel sure that was the name of the town, though I can't locate it on my map. Whatever its name, we were stuck there over Sunday. Jim, who had a good bass voice, sang with the choir of a church we attended.

We wanted to ride the Chicago, Burlington & Quincy out of there, and Sunday night the operator, Schroeder, fixed it for us to ride the caboose of a freight train. Brother, that was some ride. Those were the days of light rail, no ballast and reckless running, and not long after we left the terminal with Jim and me stretched out on the caboose lockers and the train crew in the cupola, our crummy really began to walk about. I expected it to take off into the fields at any minute. I went over to Jim and said, "This thing's going to land in the ditch, sure." "Yeah," he agreed, "I reckon it is, but if them sons o' guns up there can stand it, we can. Go back and lie down." Much to my surprise, we landed in East St. Louis all in one piece.

We had no doubt that we would find any number of jobs open in a railroad terminal as large as St. Louis. But it seemed we had lit there at about as poor a time as possible. The demand for operators was, at the moment, nil. We made the rounds of all the railroads and there's sure a lot of them there, but in every case we received only an invitation to call back, with the assurance that there would be an opening in a few days.

The few days stretched into a week, and though we economized in our living to the point where lodging was but 50 cents per night and meals 15 cents (and by golly, I mean 15 cents) our cash was dwindling rapidly. At last we set a final date to stick it out. Mr. Charley Hammond, superintendent of telegraph, Missouri Pacific, was a very pleasant official. He always encouraged us to call back, assuring us that there was sure to be an opening before very long. We took an inventory of cash one evening and decided that we would make one more call. If nothing positive was in sight, the next morning would find us returning homeward. We sure hated to admit we were licked but it seemed that we'd have to. In fact we were so near broke that we knew it would be necessary to hock our watches to have enough to eat on until we got home.

The final call proved the old adage correct, "It's always darkest just before dawn", for when we walked in Mr. Hammond greeted us with a smile and asked, "Boys, how would you like to go to Texas?" Instead of answering Mr. Hammond, Jim turned to me, "Ed, it's so hot down there this time of year, we'd die sure." I ignored Jim as he had Mr. Hammond. "That's fine. We'd like to go to Texas or anywhere else you want to send us." "Okay then," said Mr. Hammond, "my assistant superintendent, Mr. Stacey from Marshall, Texas was in the office last evening when you called and after you left he said he would use you if I'd send you down to him. So be in the office at 8 a.m. and I'll have your passes ready."

After we were outside, Jim growled, "You know May is a bad month in Texas. It'll kill us both." "So what?" I answered. "We'll just have to take a chance but I'm not afraid of it. Are you?" And so we rolled southward to the Lone Star State and new and untried fields. I spent my last 15 cents soon after we left St. Louis, buying a sandwich. Jim still had 8 or 10 dollars, either because he had a bit more to start

with or because he was more careful in his spending.

We arrived in Marshall in the morning, left our grips at a saloon with a friendly barkeep who assured us they would be safe, and hied over to Mr. Stacey's office. He greeted us with a friendly smile, looked over our letters. Service letters, or as the boys call 'em now, clearances, were not known at that time. Those we had were from chief dispatchers for whom we had worked on other railroads. Anyhow, Mr. Stacey found them satisfactory, so merely asked us a few questions, then informed us he would send Jim to Paris, Texas and that I would go to Fort Worth. Jim was to leave that night and I next morning, so when Jim pulled out he handed me about half of the six bucks. That was all that remained in the treasury. This fixed both of us until we actually were on the job. In those days anyone with a job had no trouble establishing credit, consequently we were on easy street once again.

I LANDED in Fort Worth in time to go on duty at 7 p.m. It was with a sense of elation that I slipped into my seat at the desk. "Seventy-five dollars per month", I thought, "I'm really getting in the big wage scale now. More'n twice the 35 I got with the Postal in New York." As was usual for operators then, my trick was for twelve hours: 7 p.m. to 7 a.m. The office was located on the second floor of a great, two-story frame building that from its appearance was about ready to collapse. It was really a busy place, as they worked ten or twelve operators during the day shift. This was due to the large amount of relay message work as well as three darn hot dispatching wires. I had a man with me until 10 p.m., then was alone the balance of the night.

The message work eased off after 10 o'clock, but the three dispatcher wires kept me right on my toes, and then at arrivals of passenger trains a spurt of Western Union messages filed by incoming passengers would start me off on a mad dash to catch up. Yep, I was getting more'n twice my old salary but I was doing more'n twice the amount of work, too. But what worried me most were the unfamiliar names. Many of those towns had Spanish names I'd never before heard of, and while they didn't bother me too much in messages, the fear of a mistake in a train order which might result in disaster was the source of much anxiety. However, I was either lucky enough or careful enough that nothing of the sort ever happened.

It was a great change for me, from away back East to deep Southwest and it had me going around in pop-eyed wonder as I saw things hitherto only read of. Fort Worth was considered more or less of a cow town, although if my memory is correct there were 65,000 residents at the time. It was said that the largest cattle sales in the United States were held there. The place was wide open, gambling houses and brothels made no attempt at disguise. In fact, one gambling place and saloon had a heavy glass sidewalk, under which was a solid layer of silver dollars. The glass and dollars continued on into the barroom and in front of the bar. The drinking water in Fort Worth was delivered from house to house in barrels, hauled on flatbed, horse-drawn wagons. The best thing that could be said for that water was that it was wet. I don't remember having a drink of clear, cool, good-tasting water during my entire stay in the great Lone Star State.

One morning just as I went off duty, Division Superintendent Polhamus requested me to go with the wrecker to the scene of an accident at Argyle, Texas, just about four miles West of Fort Worth. Mr. Polhamus was in charge of the joint track of the Texas & Pacific, Missouri, Kansas & Texas, Fort Worth & Denver City railroads; consequently, he went along with the wrecking train.

At a reverse curve in a piece of badly kept track (the Goulds had those properties and what they did to them was a crime) a rail had turned over when that

Those rapier-like horns made a pass and I climbed that pole to the cross-arm before I stopped to look around

little 20-car stock train, running about 20 or 25 miles per hour, hit it and derailed a few cars, one of them turning on its side. The cattle had been freed from all the derailed cars and were scattered over the plains for quite a distance. It didn't take those wild longhorns long to do it either. The first thing the superintendent did was to hire a bunch of cowpokes to round up the cattle and hold them until they could be reloaded. The telegraph lineman cut a box relay in on the dispatcher's wire at once, nailing a rough board to a pole for a desk. With an empty box for a seat I was ready to handle any communication that might be desired. It was a mighty hot day and there was no drinking water available, so Superintendent Polhamus bought the entire contents of a wagon load of watermelons from a passing teamster. Texas sure raises splendid melons.

The wrecking crew were not a great while rerailing the cars and building an improvised chute to reload the stock. The cowpunchers had rounded up the herd and were holding it nearby. As soon as the chute was ready they began to urge the critters forward towards the cars, which also meant towards me. I was too busy sending a message to notice how those longhorns were acting, but just as I finished transmitting I heard the thunder of hoofs and looked around to see a cloud of dust and cattle coming from everywhere, it seemed to me, and all of them headed right in my direction. I didn't have much time to figure things out. There wasn't a darn thing to shield me from that fast approaching herd, except the telegraph pole. Yep, that was my haven if I could make it. I'd just have to shinny up that pole and be quick about it too. I didn't know then that a man afoot would scare and stampede a herd of cattle quicker than almost anything else.

WHEN THE cattle were but a few feet from me, I stepped on my box, then to the shelf which I had been using as a desk. I had planned to put my weight lightly on the shelf so as not to break it off, but one of those long rapier-like horns made a pass in my direction and I planted my big foot on the shelf and gave a spring upward. The thrust tore the shelf off the pole and the wires loose from the relay, putting the entire telegraph circuit out of service.

However, that was the least of my troubles right then; my aim was onward and upward, and while I didn't shout excelsior I sure "cooned" that pole. I was almost to the cross-arm before I stopped to look around. The cattle were clustered around the pole, tails in air and a couple of 'em looked as though they might try to climb after me. Farther back, at the rear of herd, the cowpokes were waving their arms and almost falling off their horses from laughter. Was I mad? You're darn right I was. I thought, if those so-and-sos were in my place they wouldn't be so happy. After they had their laugh, it didn't take the punchers long to shove the cattle toward the chute and they certainly had a hard job getting the beasts up the incline and into the cars. That was the first time I had ever seen cow ponies work and I really believe that most of them know more about handling cattle than their riders do. It was as good as rodeo to me, a tenderfoot fresh out of the East.

It was not a great while after the wreck episode that the regular man, whose place I had been filling in Fort Worth, returned to duty and I was sent to that very same station of Argyle for a few nights as relief for the agent.

I got off the train in a heavy downpour. The agent, who was waiting, said, "Hello. Here's the keys. Goodbye!"

My gosh! A short time previous a severe hail storm had knocked all the glass from the station windows, the kerosene lamps were all on the blink so I couldn't keep 'em lit and the station was located quite a distance from the town, which of course, didn't lessen the loneliness. What a night! I was sure lonesome and a bit frightened as well. But in a way it was a valuable experience, for through it I became used to those lonely desert jobs where there was no company save the clicking instruments; where it was like having company when an occasional train pulled in on your siding and you could talk to the crew; where you regarded the trackwalker who passed your station going west in the morning and east in the evening as someone to cherish as an acquaintance.

The agent came back after ten days and I was sent to Hodge, Texas. A few days before leaving Argyle I had that unforgetable experience that remains in the memory of every oldtime railroader, my first visit of the pay car. In the East we had been paid from the cash drawer or by a visiting paymaster who carried the money in a valise. But here—gosh, they hauled it to you by train. Just before I went off duty one morning the dispatcher told me to notify the section foreman that

the "band-wagon" (pay car) would be at Argyle about 9:30 a.m.

I can see that scene as though it were yesterday—the little dingy yellow office, the rails to the west drawing closer and closer together until they became one; and those leading eastward into the morning sun looking like streaks of silver. And presently, out of the sun and down those shimmering rails an engine streaked towards us with a plume of smoke lying flat on the car tops to the end of the train, where the suction threw it into spiraling loops and then—lost.

With smooth abruptness the engine, all bright, shining, brass-mounted, and the handsome painted coach, with its platform railing also brass and highly polished, drew to a stop directly before the station where the section gang and I were waiting. You mounted the right-hand steps under the cold scrutiny of one of the railroad's detectives and entered one of the two doors at the rear of the car. Inside you faced the paymaster, seated behind a wire-protected counter with the payroll before him. I'd never before seen that much money at one time. It looked to me like the U.S. Mint. I gave my name and the clerk looked on a roll. "Burdick, E. G., operator, $75," he stated tersely to the paymaster. The latter slid three twenties, one ten and one five dollar gold piece in front of me. "Count it," he ordered. I did and made way for the section men, each of whom was identified by the foreman. While I was at the pay window I noticed that both paymaster and clerk had large ugly looking revolvers near their right hands.

After Argyle, Hodge seemed real populous with an agent, another operator and me for the station force, besides a couple of car inspectors out in the yards. The reason for such a force was that Hodge was a junction from which the FW&DC veered north on its own rails. The worst drawback was that there was no place close where we could eat. The agent was married and occupied quarters above the station building, but his wife wouldn't be bothered cooking for outsiders. The two car inspectors batched by themselves, which put it up to the other operator and me to do the best we could for our own needs.

THAT BEST turned out pretty good for that's where the grand Dagget family came in. Their ranch house was more than a mile distant from the station, but they were kind enough to let us have our meals with them. They had been a very wealthy Alabama family before the Civil War, and had somehow salvaged enough of their former wealth to establish themselves in Texas. Many of their former slaves accompanied them and still lived with them, and as was the case then those freed Negroes adopted their former owner's name. Old Mrs. Dagget was the boss. Because of having lost her husband in the Confederate Army she was very bitter toward Yankees, but they were all surprisingly kind to me. I was the only Yankee in the lot or, in fact, in that part of the state. The whole family were cultured, well-educated people and I had many pleasant visits with the old lady. She had a wicked looking scar which was caused by a centipede falling out of some hay onto her neck. Where each of its many feet struck, a sore followed that resulted in the long, ugly scar.

Centipedes and tarantulas were plentiful in that section; we used to find quite a bit of amusement in fighting the tarantulas. Using a long reed or switch we'd poke at them and they'd spring at it and bite furiously. Their bite was considered very poisonous but not fatal if a person's blood was in good condition.

I had quite a narrow escape from ascertaining just how poisonous they were one day while aggravating a big one by poking at him with a stick. Some sound distracted my attention momentarily, and when I looked back I saw my tarantula had leaped on the stick and was racing up it toward my hand. Gosh, did I throw that stick away quick. The incident still makes me shudder.

Another insect that was mighty prevalent was the chigger. I'd never heard

of 'em and didn't know what was causing all the itching on my ankle and lower parts of my legs. I darn near scratched the skin off before the oldest one of the Dagget girls noticed me scratching and said, "The chiggers are working you over, eh? No fun, is it? Well here's a piece of salty bacon to rub the itching spots with. That'll stop it in a short time." And by golly, it did.

I mentioned awhile back that many of the Daggets' former slaves had followed them to Texas and it was while I had my meals at the ranch that I learned to appreciate the bonds that tied whites and blacks together. One of the Negro men was named John Dagget and the eldest son of the family was John. Black John was in the habit of running in to Fort Worth, where he'd get drunk and be thrown in the hoosegow. One day I was visiting with white John and the phone rang. The sheriff at the other end told him, "Yo' niggah is in jail again. Want to bail him out?" "No sah," said white John, "that damn niggah can stay in jail 'til he rots before I'll bail him out."

John came back and renewed our conversation, saying, "That fellow can't go to town anymore without getting drunk and in jail. I'm tired foolin' with him." He talked a little longer, then burst out, "You know that niggah is one of the best men with hosses I ever saw!" He spoke a few more words and I could see his mind wasn't on what he was saying. All at once he said, "Excuse me." He went to the phone and I heard him tell the sheriff or jailer, "Turn that no-good scoundrel loose 'n I'll pick up his fine next time I'm in town."

I HAD a pretty tough deal while at Hodge—every last man there took down with chills and ague and left for the hospital or some place else. Everyone fell victim to it except me—it never fazed me. Too tough, I reckon, or else I hadn't been in the country long enough to get a load of it. Why even the dogs,

"It's no mystery to me!"

SAYS STAN WARREN, PRIVATE EYE

"FOR WORK CLOTHES FABRICS THAT WEAR LONGER- MY FIRST CLUE IS THIS LABEL"

PEPPERELL FABRICS

Pepperell Manufacturing Company, Boston, Massachusetts

QUALITY YOU CAN COUNT ON — BY THE MAKERS OF FAMOUS LADY PEPPERELL SHEETS

and there were plenty of them, shook with ague. Somehow I managed to run the station by myself for several days, doing the best I could under the circumstances. Mr. Stacey had no one he could send out and told me to hire anybody that might come along.

A young fellow who was riding the rods on a freight that pulled in came to the office and asked for a drink of water. I liked his looks and persuaded him to stay and work with me. He had no railroad experience but told me his name was Dan Dyer, that he had been educated for the priesthood but had turned out too wild. I can't remember what place he named as his home but it didn't take long to find that he was unusually well educated, learned rapidly and wrote a beautiful hand for waybilling freight. We had quite a lot of re-billing of freight coming from the Cotton Belt Ry., so I started him on that and he did a swell job 'til he earned enough money to run over to Fort Worth and get drunk. Before he left he swiped my best suit (that I had just bought) and I've never heard of Dan or the suit since. A couple of days later a boomer operator off the Santa Fe at Albuquerque, N. M., came along and I hired him.

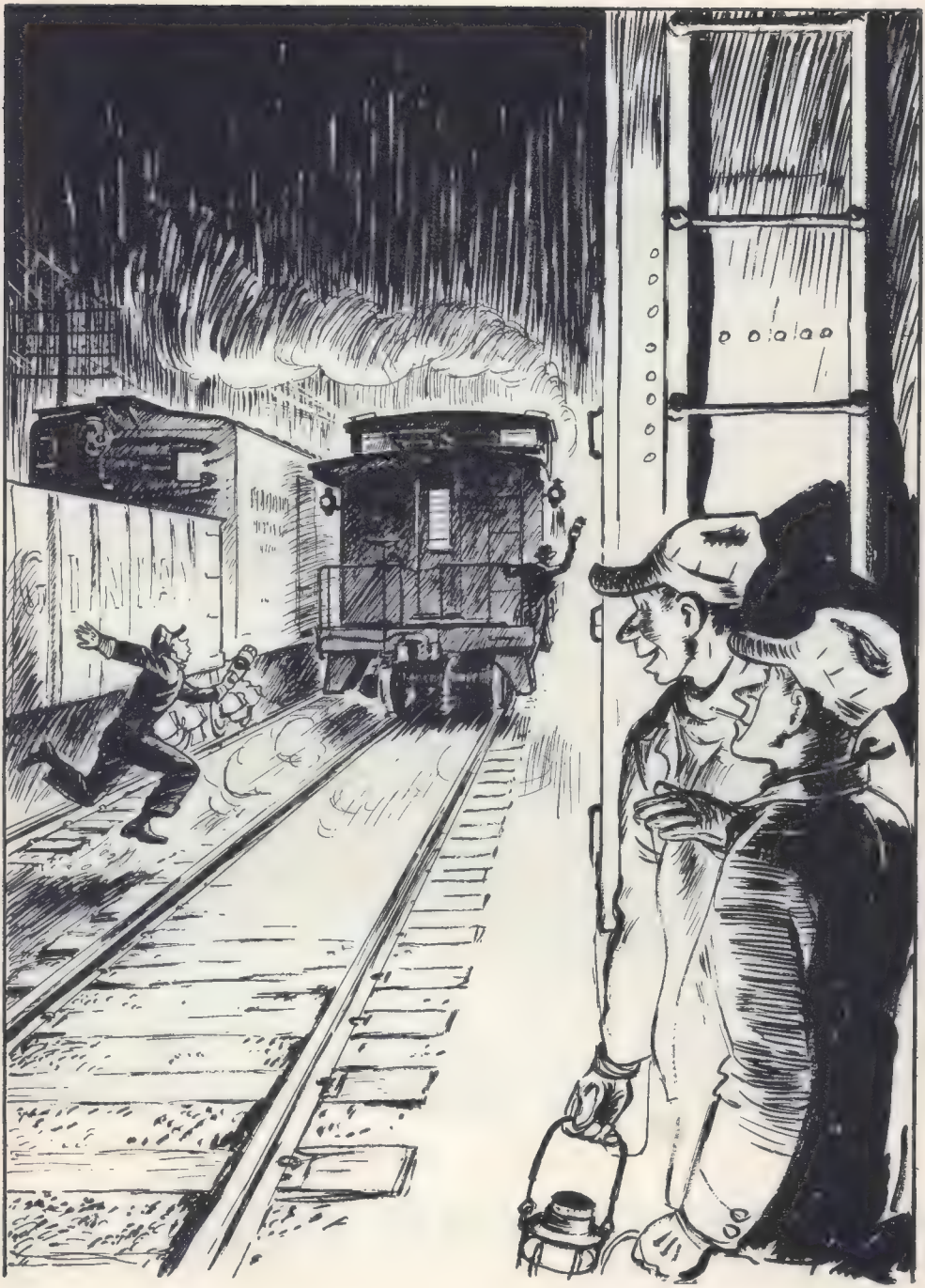
Each of us at Hodge, that is before the gang all got ill, had a special pickaninny to get our laundry, shine shoes, run errands, etc. Their cabins were quite a long distance from the station, but needing my laundry one day, I went down there after it. The cabins were in a grove of trees, luckily for me, for as I approached a whole pack of lanky, mangy hounds came tearing at me. That's where the trees came into the picture, for I was up in one of 'em before you could say 'scat' and stayed there until the Negro boys came and drove the dogs away.

I was still at Hodge when the great Johnstown flood occurred. I remember well how horror stricken the folks were around there, even though they hated the Yanks and the tragedy had happened in the North. A few days later, who should come busting in but my friend Jim Howard. He said he'd gotten in a fight at a circus and left without getting his clothes or anything else. He was flat broke and hadn't eaten for three days so I squared him to eat and kicked in with a little change. A few days later the chief dispatcher wired him a pass and sent him to Amarillo, Texas, which was out in the Staked Plains country and a station on the FW&DC. I was told that three train loads of stock each day for more than a year had been shipped from that station. Jim remained there quite a while.

A short time after Jim's departure the chills and ague epidemic eased and the guys who had been to the hospital came wandering back. I sure was glad and I haven't the slightest doubt that the road's auditors felt the same, as all I had done had just barely kept the road going. All reports were away past due, but I had gotten all waybilling out, kept the cars from the Cotton Belt moving and taken care of all train orders and message work. No one had any complaints, but the old foot itch came on and I eyed that far distant horizon and finally decided I must see what lay beyond it, and so I presently found myself at Quanah, Texas, just a few miles south from "No Man's Land" across the Red river.

Continued next month

GERMANY'S FIRST RAILROAD was the Nuremburg Railway, and found recently among the firm's records was this document signed by eminent physicians of the Bavarian College of Medicine in 1835: "Traveling in vehicles drawn by locomotives should be prohibited in the interest of public health. Such a rapid motion cannot but produce in the passengers the mental affection known as *delirium furiosum*. Even should the passengers themselves be willing to run this terrible risk, it is, nevertheless, the government's duty to protect the public. To the mere onlooker, moreover, the thing is positively dangerous. A mere glance cast at a locomotive traveling at a very high speed is enough to produce the same mental derangement in the beholder. Even if passengers are to be allowed to ruin their mental powers it is at least absolutely necessary that a 10-foot wall should be built on each side of the line throughout the entire length, so that the flight of the iron horse may not unsettle the public mind."



NOT ON THE WHEEL REPORT *Joe Easley*

"Look at our smart-aleck student making for the wrong hack—hope he catches it!"

A TRIP ON THE NIAGARA

The NStC&T Gives Hourly Interurban Service Between Thorold and Port Colborne, But CNR, The Parent Firm, Looks to Buses Any Day Now

STEVE MAGUIRE

SOLE SURVIVOR of a network of passenger interurban lines on the Niagara Peninsula is the 19-mile high-speed run from Thorold to Port Colborne, over whose tracks the big cars of the Niagara, St. Catharines & Toronto Railway give hourly service daily, making the run in 50 minutes.

Although the rest of the routes of the NStC&T have been retained for freight

St. Catharines, Ontario home of the Niagara, St. Catharines & Toronto car shop, where electric cars, electric locomotives and buses are maintained

All photos by Don Sinclair, St. Catharines Standard, for the Niagara, St. Catharines & Toronto Ry.

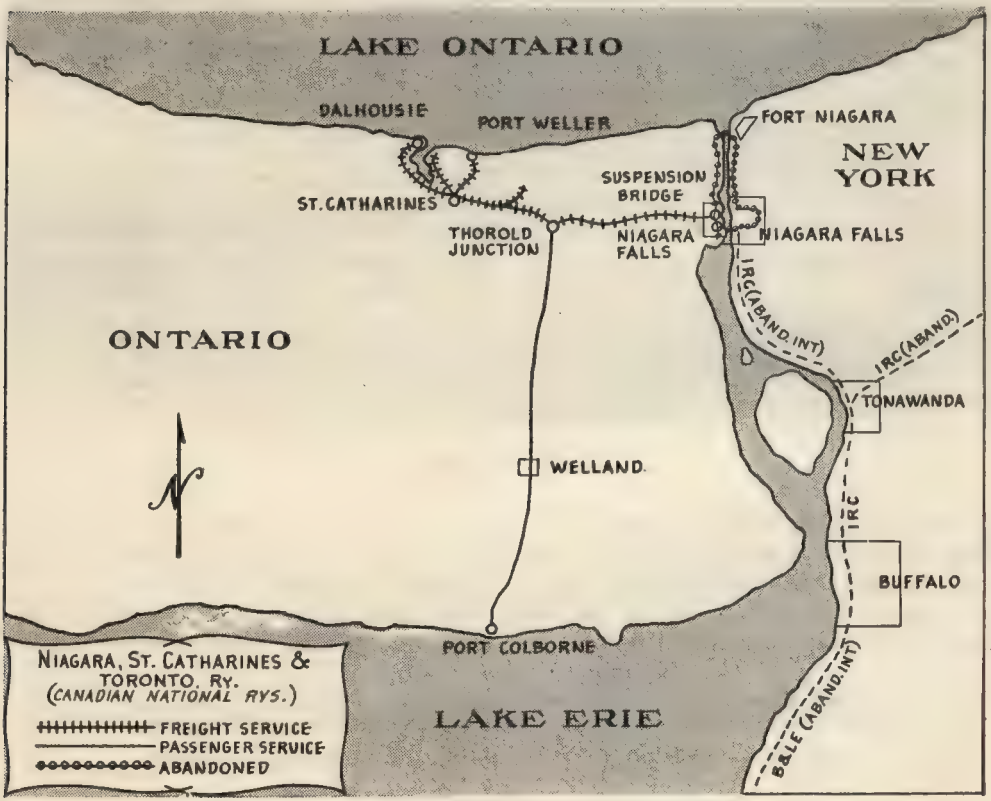
service only, with passengers transferred to buses, the Thorold-Port Colborne line has remained to the present, but its future is far from bright, as the parent company, the Canadian National, has scheduled it for buses any day now.

Thorold was at one time hardly more than a junction point for the interurban lines out of St. Catharines, home of the company shops and barns. To reach Thorold one must take a local NStC&T bus from St. Catharines and ride over a hilly, bumpy road, frequently dusty, with occasional gravel surface. The trip takes 45 minutes by bus—it took the interurbans just a little over 10 minutes to make the same run!

At Thorold, you don't need to buy a ticket at the station. Just pay the fare on a car pulled in from a spur that ends at the depot wall. The six cars available for service on the Port Colborne run are all long, high-wheeled speedsters, tipping the scale over 40 tons. Each is capable of well over 60 miles an hour on the present roadbed, not too well maintained.

Entering the car through a single, narrow door on the head end, you find that the motorman's seat is in the center of the platform. In front are the controller and brake valve while on both sides are the air-operated door levers which permit loading from either side of the platform. These cars are double-ended. Similar controls are located at the other end of the interurban.

At the rear of the car is an assortment of baggage and freight. An agent loads miscellaneous lcl articles, ranging all the way from a heavy truck tire to a pressure cooker. Once the articles are loaded, the motorman, who assists the agent in loading the car, moves to the head end and, after checking and signing the train order, closes the car doors and with two long peals from the air gong, pulls the car out of the station. Although cars run from each terminal every hour on the hour, and



To get to Thorold for 19-mile trip to Port Colborne you have to take a NStC&T bus from St. Catharines. At Thorold, *above*, Kuhlman-built Car 80 and bus exchange passengers while one-man crew Sam McPherson, 34½ years with the company, poses for posterity

usually meet at the same siding, the motorman has to carry a signed train order authorizing him to make the movement.

In the course of two intersecting curves, the track crosses the main road into town twice within 500 feet, each crossing requiring two blasts on the two-tone horn. At the second crossing a souped-up Ford, carrying more chrome than a model bathroom, dashed across, right in front of the car, oblivious to the airhorn warning.

"Nut!" the motorman muttered. "We get maybe a half dozen of those guys every day—and then people wonder why we have to use the airhorn at a crossing where we have the right-of-way anyway."

A few minutes later, after a fast run on private right-of-way, we stop at Rusthill, one of the 35 regular stops along the route. As the car door opens, the voices of a couple of switchmen can be heard complaining to our motorman, "The bloody hog is up at Fonthill siding, Joe. Sam and I'll ride up with you and catch the . . .!"

Electric Park (Stop 19), a Canadian National crossing, is meeting point of trains. Operator hops out and telephones report to dispatcher from booth at left of car

"Left you behind at the end of a string of cars, did he?" comments our motorman, laughing at their plight. "Must be that so-and-so—" naming a NStC&T knight of the controller infamous for his impractical sense of humor. "Get in. He'll be in the hole for me there, anyway."

As the lost crew boarded, one complained, "Come on, wind 'er up. I wanna get there and wrap a spare pole around his lousy neck."

THE MOTORMAN wound her up all right, though probably more because of the timecard than the switchman's complaints. With the controller slapped against the high-speed stop, the car got away quickly, with a rolling motion from side to side as she hit some stretches of old rail.

"The roadbed ain't what she used to be," said Joe, "This here is mighty light rail and these high-speed cars are so heavy they've kinked every rail between here and Port Colborne. It's regular Canadian National track gangs that keep the line up and they're told not to do anything more than they have to."

You could see the rail ahead shining in the sun, rails toeing inward at joints and bulging outward between them. Ties were missing here and there and the track sagged in spots. All in all, the right-of-way bears familiar evidence of a line operating only until franchise kinks can be ironed out.

Ahead again could be seen a curve that looked as sharp as one at a city intersection. Instead of seeing the motorman reach for the air, it was a surprise to find he didn't touch it or the controller, and yet the long, heavy car on reaching the curve didn't pull sideways. It just glided around that poorly-graded curve as smoothly as a coaster wagon.

"Like I said," commented Joe, "it's got high-speed trucks and mountings under there and they'll take anything I can give 'er."

Maybe so, but my blood pressure was still higher than the air reservoir.

After a few more miles of open country-side and several stops to pick up homebound workmen and farm wives with bulging shopping bags, we approach a siding about a mile out of town where car No. 80 is waiting to pass us. She is a heavy, steel interurban, Kuhlman-built in 1915 for the Cleveland & Eastern Railway and purchased in 1926 by the NStC&T. Our own car, No. 82, somewhat different in design, was built in the NStC&T shops in 1924.

At the stop a flagman left the other car and boarded our interurban. This fellow has the job of riding each of the cars from Port Colborne to the siding and return, protecting them over the two CNR diamonds enroute. He also helps the motorman by collecting fares and ringing them up, and occasionally taking over the operation of the car.

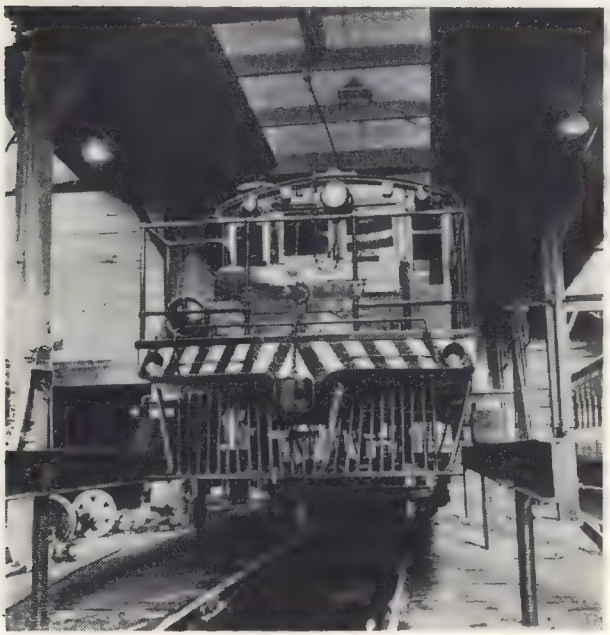
Eleven miles from Thorold and nine miles from Port Colborne lies Welland, halfway point on the line and the largest town between the two terminals. As some of the freight cargo is being unloaded you can get out and look over the car you have been riding. Like No. 80, the outside red-and-cream paint is shabby and peeling and her appearance indicates that only essential maintenance is performed on the equipment in these latter days of the line.

A FEW MILES ON we come to the CNR crossing and pull to a stop at a derail marked by a red board at the die of the track. Our flagman leaves the car and goes into a shack where he telephones the dispatcher for orders. Then the derail is thrown off and we go over the intersection, stopping again to let the flagman notify the dispatcher of our progress. Farther along another CNR crossing was handled differently. Here the flagman simply got out and walked ahead of the car, which followed him over the intersecting tracks.

Some flagmen on the line ride the front end of the car while hanging from the bottom step, instead of walking ahead, a practice frowned upon by the NStC&T.

"They think it's a helluva idea," says our motorman.

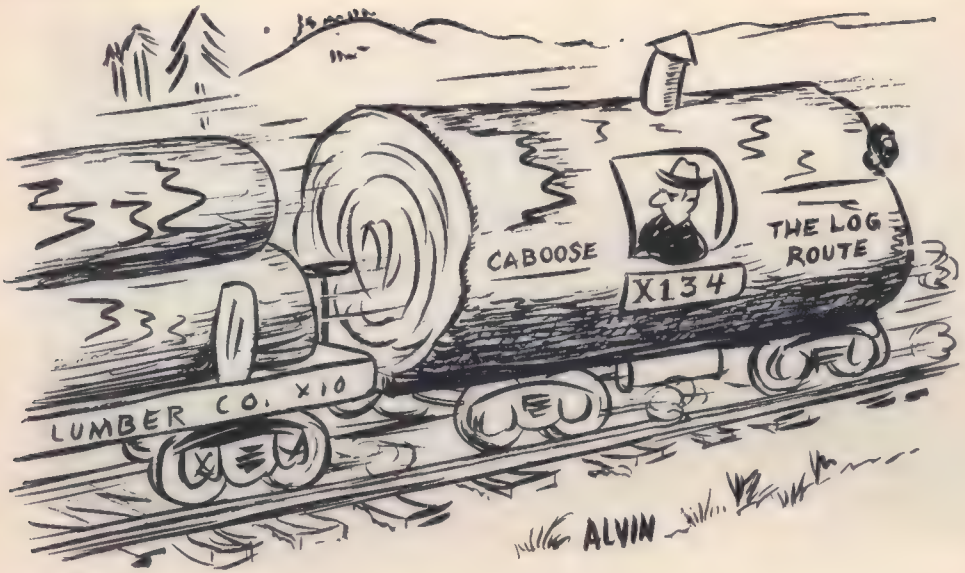
Along the route, passengers get a look-see at some freight business. Switcher, having cleared passenger train at Substation Junction, *above*, shunts cars to and from industries near Thorold. On the hoist for repairs to truck and motors is an electric engine, *below*, in the St. Catharines shop



As we pass through Humberstone, home of the huge flour mill and elevator of the Robin Hood Milling Company, we near the end of the run, for Port Colborne is only a mile or so beyond. The port city is the home of the largest steamship company under single ownership on the Great Lakes, the Sarnia & Colonial Steamships.

Leaving the private right-of-way, the car travels along the side of the road, finally paralleling the CNR for a short distance and ending at a stub terminal in front of an ornate station building, not far from the Welland Canal, whose locks can be seen nearby.

When abandonment comes the newer cars, 82 and 83, will be transferred by the parent company to the Montreal & Southern Counties Railway, also CNR-controlled. One



NStC&T car has already been obtained by a group of Buffalo, N.Y. railfans for preservation. This is wooden No. 130, built by the Preston Car Company 40 years ago. It has arched windows complete with stained glass and is typical of interurbans of the early 1900 era. However, most NStC&T stock still has some life left.

oh-oh, Dry Scalp!

"JEFF HITS the headpin right, but he'll never make a hit with that unruly hair. He's got Dry Scalp. Dull, hard-to-manage hair . . . loose dandruff, too. He needs 'Vaseline' Hair Tonic. . ."

Hair looks better... scalp feels better... when you check Dry Scalp

GREAT WAY to start your day! A few drops of 'Vaseline' Hair Tonic each morning check loose dandruff and those other annoying signs of Dry Scalp . . . give your hair that handsome, natural look. Contains no alcohol or other drying ingredients . . . and it's economical, too!

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Listen to DR. CHRISTIAN, starring JEAN HERSHOLT, on CBS Wednesday nights.

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Electric Lines:

Carbarn Comment

AN INDICATION of the rapid deterioration in transportation is seen in the most recent decision of the West Penn Railways, operator of a group of interurban lines in western Pennsylvania. The WP originally applied to the Public Utility Commission for substitution of the remainder of its interurban lines to buses, but a report from Jack Thomas of 2349 Beaufort, Pittsburgh 26, Pa., tells us that the traction company has withdrawn its application for substitution of buses and is now seeking to abandon its whole transportation operation, except for its present bus routes. The WP cited increased costs and lack of patronage.

It has been no secret for a long time that the transportation business, generally, is in sad shape. Increased use of autos; television, which has cut deeply into nighttime riding, and a tendency by business to move from the downtown section of cities to outlying suburbs, have all joined in the damage to transit business. The recent substitution of buses for trolleys, almost on a wholesale scale, has been an indication of the attempts to cut costs in the mistaken belief that buses will cost less to run. They all are trying to retrench as fast as possible, but the West Penn is the first of the bigger interurban lines in recent years to try to quit.

* * *

LAKE SHORE ELECTRIC, in our November issue, has met with more enthusiastic response than we could possibly have imagined. Looks like the LSE, even though it has been gone for 13 years, is still fondly remembered.

Harry S. Earl, former LSE substation superintendent, writes from his home at 101 Second Avenue, Tiffin, Ohio that little 2-year-old Lelia Smith, the child who was rescued from the tracks in front of an oncoming car by William Lang, the motorman, is now grown-up, a pretty young lady who still visits Lang at his home, where he is confined. Lang is a relative of Harry Earl's wife.

The accident at Bellevue crossing in

Photos by Steve Maguire

West Penn Railways is trying to give the axe to trolleys on the remainder of its interurban territory, so perhaps you're seeing the last of Car 287, *left*, crossing highway at Manor, and No. 723, *above*, leaving Connellsville for Hecla Junction

1929 when 19 persons were killed in the bus wreck is still remembered by Earl. The LSE motorman was Tom Schuyler and the accident occurred in a snow squall. The bus operator stopped at the crossing and got out and looked both ways but did not see the limited approaching at high speed, and when starting up, the bus was hit broadside. Schuyler was so unnerved from the accident that he had to lay off for several months. After he returned he was never the same again, and died two years later.

Earl also tells us that the Berlin Heights line via Norwalk did not quit in the 1920s, but continued to operate right to the end. The view of Car 18 hauling the Birney car shows them returning to Sandusky from Norwalk via the Berlin Heights & Ceylon Junction line.

From Harrington, Maine, Donald E. Metcalf writes that both the LSE and Cleveland & Southwestern were engaged in a race for the connection with the Toledo, Fremont & Norwalk, to obtain a through line to Toledo from Cleveland. It has been understood that the TF&N would be absorbed into the CSW but in the end the LSE route took over the TF&N through some maneuvering that is still puzzling to the oldtimers.

Although through traffic on the routes must have been competitive in the early days, the lines were really not close enough to be hotly competitive in local service, says Metcalf. The CSW was much more of a local line, with stops averaging three to the mile. The Norwalk line of CSW was abandoned early because it passed through lightly-populated territory and gave no through traffic west of Norwalk, as did the LSE route.

Incidentally, we will soon have a story of the Cleveland & Southwestern, written by Max E. Wilcox. We hope it will be as well received as was the Lake Shore Electric feature.

* * *

JUICEFANS received a sad piece of news with the announcement by the Central Electric Railfans Association that it was ceasing publication of its *Trolley Sparks* bulletins at the end of last year. It was ironic that the success of these comprehensive electric railways stories

should have been the cause of the decision to end publication. They were just too good, and so much valuable time was spent by CERA members in compiling them, that the members just did not have time to spare from their other work.

The last publication of CERA was *Electric Railways of Washington State,* a well-illustrated issue covering the many lines, small and large, in the northwesternmost state of the Union. Copies of this issue are available from CERA, Box 503, Chicago 90, Ill. at $3.

* * *

RECENTLY published was the history of the Long Island Electric Railway, later to become the Jamaica Central Railways. Vincent F. Seyfried, author of New York & Queens County Railway history, published last year, has given us another complete historical account of one of the metropolitan lines on the fringe of the New York City limits. Copies of this 47-page illustrated publication can be had from Felix Reifschneider, Box 774, Orlando, Fla. Price, we understand, is 75 cents.

* * *

NORTH JERSEY CHAPTER of NRHS has issued another of its *Markers,* the latest being the illustrated history of the Camden Division, written by Edward Francis, Public Service employe and historian. The 16-page story contains many rare Public Service prints and is available from Rudloph Wendeling, 113 Oakley Street, Roselle, N. J. at 50 cents.

* * *

PASSENGER BUSINESS of the London & Port Stanley Railway will be abandoned and Greyhound buses substituted for the cars, if the plans of the operators meet the approval of the citizens of London, Ontario, writes Charles S. Black of Newtonbrook, Ontario, and Ross G. Snetsinger of London, Ontario. The road operates a 24-mile interurban

In early years of LSE, train operation was common, but dwindled with passenger traffic in 1930s. Three-car train consisted of Nos. 176, 179, 177, all steel

Ontario's London & Port Stanley is putting it up to London citizens: "Do you want Greyhound buses or these cars?" This one is No. 2 near St. Thomas

line from London through St. Thomas to Port Stanley.

Says Black, "It's a good bet that the buses won't keep the same low fare, particularly on weekends, and they can't make the fast time of the electric cars." Snetsinger has been conducting an active campaign in London to get the public to keep the electric railway service.

* * *

CHICAGO Transit Authority's latest and wildest scheme to combat losses includes substitution of buses for elevated trains on the Garfield Park line from Des Paines Avenue west to Mannheim and 220th Street. Between Laramie Avenue and Des Plaines elevated trains are run only on weekdays, buses taking over on Saturdays, reports Earl R. Boone of 3206 St. Charles Road, Bellwood, Ill.

In addition to the elevated abandonment, one of Chicago's heaviest streetcar lines, Milwaukee Avenue, will see weekend substitution of buses, we learn from John J. Ahern of 624 Pershing Avenue, Wheaton, Ill. Ahern also tells us that service along the vacated elevated route will still be provided, in part, by the Chicago, Aurora & Elgin interurban which owns the track from Laramie Avenue to Bellwood but, of course, the infrequent interurban cars do not give the quick service of the elevated trains all day. The portion of the El line beyond Bellwood sees no service of any kind.

* * *

O. R. CUMMINGS of 188 High Street, Newburyport, Mass., presently with the Navy, is compiling a history of the Concord & Manchester Electric Branch, which from 1903 to 1933, connected New Hampshire's capital city with the industrial city of Manchester, as well as operating a sizeable local system within Concord itself. This road was later known as the Concord Electric Railways but was always under the ownership and management of the Boston and Maine.

Cummings needs pictures and information. A letter addressed to his home will be forwarded to his military station.

Robert Boeddener

Detroit no longer can claim the only operating four-track streetcar stretch in the U.S.A. Significant picture was snapped a few weeks before the Detroit line, which used the two left-hand tracks, was abandoned last August. These tracks had been used by the Clifton line, where the Lake Shore Electric once ran. Only the pair of tracks at right are used now, by the Lorain, Clark, Madison and West 25th Street lines

Paul Stringham

In true interurban style Illinois Terminal's No. 281 rumbles down Madison Ave.—in Bloomington, Ill. on Decatur to Mackinac Junction link

SPUR to NOWHERE

R. B. MORAN

Times Were Tough All Over In '32 —The Cow Had Been As Hungry As The Hoboes

IT WAS 1932 and in the wake of '29, times were tough. No business, no work, no money. Railroads moved trains half-heartedly. Skeleton terminal forces moved slowly, waiting for maximum inbound traffic so as to make heavier outbound movements with over tonnage. Inactive smokestacks hemmed switch yards which were unnaturally silent. But in the heart of Stocklon railroad yards a nameless horde filtered through the hundreds of faded, very empty box cars. They were swarming the side-door Pullmans for a berth and a free ride and escape from the local police force, who were only interested in keeping the drifting derelicts moving onward, onward, out of town, out of their sight—shunting them onto the next stop and another police force.

Teen-agers, college graduates, old men bearded and weary, in search of work. . . A train in motion with a hundred wanderers riding the tops was a common sight. Some were headed for oblivion; all to nowhere.

Rock Riley and myself, Mickey Finn, reposed on a flatcar nursing Durham pills and watching frayed humanity crawling around the long string of boxcars like harried ants trying to find a satisfactory hole

to crawl into. Riley and myself had not worked much since December '29. We were freelancers. Our seniority in the Bull Ring was not enough; we were cut off and floating in search of an office, and we were delinquent in the matter of a ducat. The old con turned us down for a ride in his oxcart when he found we had nothing new to show, so we were headed out of town and east with this swarm of human flies and anxious over our next problem, a meal. Rock counted 50 distinct and different individuals who were to be our fellow travelers. I knew Rock was in the same fix as myself—weary, tired and hungry, but not discouraged. There wasn't

a man or boy in the mob that wasn't in worse shape than us, especially the beardless boys with no head coverings to keep the cinders out of their hair—cinders in the hair is torture.

A big hog tied on the head end of the mile of empties, and air breathed through the train line. A brakie worked his way back letting brakes off, to meet his buddy coming up from the rear end. A carman gave the set-up sign and a short time later came the release; the air pistons slowly disappeared in their drums and then with two long blasts of the whistle, the train started moving. No drifting humans were in sight; they were all hidden in their moving holes. Rock and myself selected an empty that looked clean and boarded it, putting our blanket of newspapers on the floor to protect our wardrobes. But it was not our luck to have a compartment to ourselves, for the moment we settled ourselves the empty doorway was darkened by the flood of humanity—the whole 50.

The group had sized us up right; they had been watching us and figured we would know the best place to ride, so they just waited and followed our lead. Rock gave me a wry smile and a gesture to hold our present positions. Slowly, the tailenders clambered aboard and eased the two side doors shut. Darkness enveloped the entrance and a half-hundred stripped cogs of the wheel of life sighed in relief and flattened their pent up hopes and expectations on the rough and vibrating floor.

The train cleared the yard end switches, speeded up and settled down to a steady pace. The empty car rattled and clattered as only an unloaded car can. Soon the music of the rails lulled this mass of unwanted (or was it wanted?) men into a restless sleep. The cacophony of assorted breathing and snores finally synchronized and I prepared to join the slumber party. Rock was already in dreamland. Sleep and natural causes were soon to trap this boxcar full of rainbow chasers . . .

I woke with a start. The vibration of our ride had ceased. The din of the anvil chorus of tumbling tumbleweeds drowned out all other noises momentarily. Then an old familiar sound and smell came to me—the heavy and long exhausts of a hog starting a tonnage train on a grade. My nostrils picked up the odor of a hotbox, then I realized there was a rattle of moving cars at one side of our berth. I nudged Rock to life and informed him if I knew anything about sound and smell, we were set out and left behind with a hot-box under us. I scrambled in the dark over arms, legs, heads, and grunts, groans and curses and eased the track-side door open.

I peered into the inky darkness, seeing nothing at first. But the other direction satisfied my curiosity and proved my point—two red bulls eyes were diminishing, the tail lights of a caboose. Yeah, set out in this great western state of open spaces, but where—town, city, siding or nowhere? Well, Rock was not worrying; his heavy breathing indicated he was yet to learn of his new location. I opened the door wide to relieve the stuffiness and to let the body smells of 50 outcasts escape to the four winds. There was nothing to do till morning. I curled up again on my printed bed and dozed off till daylight.

WHEN I woke up later I crawled out of the maze of rumpled clothing. Leaving the empty, I took a gander at the surroundings. We were set out on a spur track about two car-lengths in extent. It had been longer, probably 25 car-lengths and had at one time served a stock pen which now lay in slow decay from disuse. At one end the rails had been removed about 100 feet from the mainline switch and the skeleton ties were naked of steel. The spur was now just a set-out point for a rare hotbox or bad order car—no more than two. The country was barren and rugged—mountains stretched as far as the naked eye could see. A great lonesomeness possessed me. I climbed the right-of-way fence and meandered toward a stand of brush where I thought water might be. There was. I peeled off and proceeded to remove some of the contamination and

grime of travel. Rock had followed me, sleepy-eyed, to the creek and with his face in two hands of alkali water, he blurted out: "What the heck happened and where in the heck are we—when do we eat?"

I wasn't happy myself, so I gave him a curt but factual reply: "That's the burning question, but just to make you feel real good and if it is any news to you, you're set out on this long road of life in the middle of nowhere. If you can eat sagebrush and cactus, your worries are nothing as you're in clover!" Rock snickered and gave me a wise and sly smile as we started back to our home on the spur.

Our fellow travelers had smelled water and here they came in a stampede. Tin cans appeared from some of their pockets, small sacks of coffee and sandwiches appeared in the foresighted and fortunate ones' hands. The more energetic and seasoned knights gathered firewood from the old abandoned stock pen and the pile of railroad ties. But the meager supply of food just couldn't make the rounds. Maybe this would be the first breakfast some of the younger ones would miss, but they weren't hungry enough yet. The kids were satisfied to just stand and stare at the majestic mountain that hemmed them in. Their heads were in the clouds, not below where the desolate cactus, sand, and sagebrush didn't look so rosy. I knew hunger would soon change their outlook. Rocky and I left the bunch and mosied back to AT&SF 31392. I'll never forget those initials and numbers and that cross painted on the side of the car.

Rock says, "So we're set out—that's a hot one. It's funny I don't smell any burnt dope or packing." I sniffed the air and decided I didn't either. Unable to resist showing off, Rock made a minute inspection of each journal and its contents, then with a knowing wink he delivered a brief but enlightening speech: "Shorty, if it's any news to you we haven't been set out, we've been ditched. Yeah, that's right. The train crew just didn't want the contents of this Pullman with them, so they just made a drop of the whole herd." I tried to see it that way, but a yell from the jungle camp informed us there was a can of weak but hot coffee waiting. As we drank it, Rock and me touched cans as if to offer a toast, but our eyes met and held fast. We were thinking the same thing, "How in the heck are we going to get out of this one, and how hungry?"

Well, we got plenty hungry. The token pocket-food the bunch had disappeared like magic the first meal time, and then came three gaunt days—no food, no nourishment. Lots of water, though. Some of the more desperate tracked down some ground vermin that I wouldn't call animals—they looked more like snakes. Rock and myself couldn't go them. Then the snakes disappeared and the only life in this forgotten land was 50 moaning, grumbling, irritable and hungry humans. Trains whistled and raced by regularly, but none stopped. Their crews waved a friendly greeting to us and some of the narrow ones waved a big fat sandwich at these forlorn and dejected but cursing victims of life. No train stopped to pick up the derelict car—no one came to repair the hotbox.

Three full days went by; the morning of the fourth was bad. Hunger makes beasts of men. They fight each other and their own pards—especially smooth-faced boys. It was just one continual, growling argument. The oldsters, who had missed many meals in the past, were the life-line of the drowning gang. They were here, there and everywhere to soothe ragged and jumpy nerves. Fights were broken up almost immediately, but friendships were doomed forever.

When things were at their worst, Rock was sitting on the crest of a hill, staring at nothing. Suddenly he shook himself and pointed a finger: "Look fellows, we got company." I stood there aghast as the army swarmed toward the newcomer—a cow! A victim of circumstances, like ourselves. The animal was gaunt and glass-eyed from hunger. She was aged, her hip bones would have made a good hatrack if you had a hat. She was on her way out before she could moo. Anxious

hands grabbed her udder for milk, but she was dry as the land she struggled in.

THE BOYS patted her and handled her gently. They treated her like a queen, but their eyes told of a different desire. Hunger and greed had set in, caution and the law were forgotten. The cow was to be a sacrificial feast, without seasoning. All that remained was the problem of taking her life. Pocket knives and razors appeared in the hands of the more aggressive. I was afraid they would start cutting her to pieces while she was still in motion. But an oldster with an experienced bearing and eye took command of the situation, raising his scrawny hands to hold back the crowd.

His watery eyes lit up as he squeaked out, "Careful boys, let's not mess this up. Let's do it right, hey boys. I'll show yuh how to do it." Fascinated in spite of myself, I watched the slaughter, as Pop directed the killing of the victim.

It was very simple. A group of men held her while a team of five picked up an old railroad tie and using it as a battering ham, pole-axed poor old Bossy. She passed out quietly, never knowing what happened when the blow in the head struck her. Willing hands grabbed the carcass and carried it to the creek. Pop directed the butchering, too. He knew his business and he had smart help. The gang cut that cow up so expertly, her parts could have been hung up in a butcher shop without shame. A giant fire appeared now, soon the feast started, and happy, greasy faces appeared. I ate some but hardly noticed it lacked seasoning. Rock filled his stomach too. The precious meal disappeared rapidly among the fifty starved mouths, although the cuts were as tough and stringy as a blacksmith's apron. Then we had beef broth, and more beef broth. Nothing remained of the stolen feast but hide, bones and horns. We all slept with a full stomach that night, some on the floor and the top of Hotel Santa Fe, while some of the more rugged picked a ground bed under the stars.

Morning came and a newcomer. He came riding over the hill, a tall, gangling, grey oldster with handle-bar mustaches, his keen eyes set in a kindly, wrinkled face. A guilty feeling possessed me as I noted the calf-skin vest with a silver star attached. The sheriff in person, perhaps in search of a pet cow. His horse ambled up to the nondescript army, 50 in a row, and halted. He just sat and looked us over, one at a time; then his eyes wavered and came to rest on the pile of hide, bones and horns, and he sort of quivered in his saddle. I thought I saw a glint in his eye, but it could have been the polished star reflecting the sun. He rode to the end of the line of men and started questioning. He asked every man the same question and received the same answer: "Did you kill her or do you know who did?" "No," was the answer all the way. Rock was the farthest man and I was next to him, but when the oldster eyed me and asked me the question, Rock butted in, "We all killed the cow, sheriff, and we all ate her, it was three days between meals."

The kindly face cast a friendly eye on Rock and the soft voice said, "Son, you're smart, that's the right answer. I could take one of you in but I can't take all of you to jail. You'd break the county trying to feed you. But I guess you was all mighty hungry. You're forgiven, but I'll miss Old Faithful—she was my pet." He kinda passed his gnarled fist before his faded eyes, pulled his hat a little lower on his head and gave Rock a nod to follow him as he rode a short distance away from the relieved "rustlers." He reached down and shook Riley's hand. I could tell Rock was giving him the entire lowdown on our plight and how we got into such a predicament.

After a while, Rock came back and informed us that Sheriff Galt had a personal friend, one Hap Chrisman, who was conductor on the eastbound local. He was going to stick around and stop the train and try to make a deal with the way-freight conductor to move our side-door Pullman to a healthier climate. A spontaneous cheer went up from the happy crowd.

AROUND noon, we heard the familiar crossing whistle, and soon a small engine with a handful of cars came into sight headed east. The sheriff just rode his horse out into the center of the main line and sat there like a statue.

When the train stopped, the sheriff waved a greeting at the hogger and tallowpot, then rode back toward the caboose, where I could see a ruddy-faced, stocky individual making for the head end—the conductor. Well, the sheriff and conductor yelled and threatened each other with their fists for a time, then they got down to serious business. Finally, they approached our group and motioned Rock and myself to come to them. The conductor came right to the point. "Are you two rails?" Rock smiles, "Yeah, all two of us." "Alright, did you ever pack a hotbox?" "Sure have," said Rock. With a nod of his head toward the caboose, the conductor said, "Get the dope bucket and packing iron and if you do a good job packing, I'll give you all a ride."

With an owlish expression, Rock told the surprised conductor that there was no hotbox, and went on to tell him why: the crew that set the empty out either got rid of the wrong car or did it deliberately to get rid of their cargo of human misery.

Hap Chrisman, the conductor, eyed Rock for a space of time, surprise written on his face. Then he hurried over to the car and examined all eight journals very carefully. Finally he looked up, "You're right, brother, there's no hotbox here." He gave the sheriff a nod, and looking at the wild bunch, asked, "Going my way?"

That was the cue—in three minutes our fellow travelers were out of sight in the Pullman. Rock and myself started to get into the boxcar as we saw the conductor give the head man a signal to cut the engine off and pick up the empty load on the spur; but the conductor called us to him and said, "Bonafide rails rides in my caboose. Get on back there." We did, waving a friendly goodbye to the sheriff.

We got under way and Chrisman called us to his desk. Looking at us seriously he said, "Boys, you know something—you're not the victims of hard luck—you're lucky! Your guardian angel was with you the night you were set out on 'The spur to nowhere.' You could have been in a wreck 20 miles farther, down at Wild Horse Canyon." He added, "Yeh, the man that set you out back there made a mistake—that's Dopey Clause, he's a poor hand. His hogger observed sparks under the train at the curve beyond the spur and stopped to have Dopey check on it, and Dopey, half asleep, finds a hotbox, but in his own sleepy, dull way, he sets the wrong car out—they find it out 20 miles later when ten cars in the middle of the train stack up at Wild Horse Canyon on account of a burnt off journal."

Chrisman spreads his hands as much to say, "Ain't you lucky?" Rock gave that story some serious thought and he then asked the conductor was that really the name of the spur back there. Cap says, "The spur to nowhere—that's it!"

Rock grabbed my hand and did an Irish jig as he shouted, "That's what I thought you said—I lived there once."

"Sorry, ma'am . . . the *Train of Tomorrow* left yesterday, but I can give you the *Train of Today* tomorrow . . ."

Locomotives of

Electrics

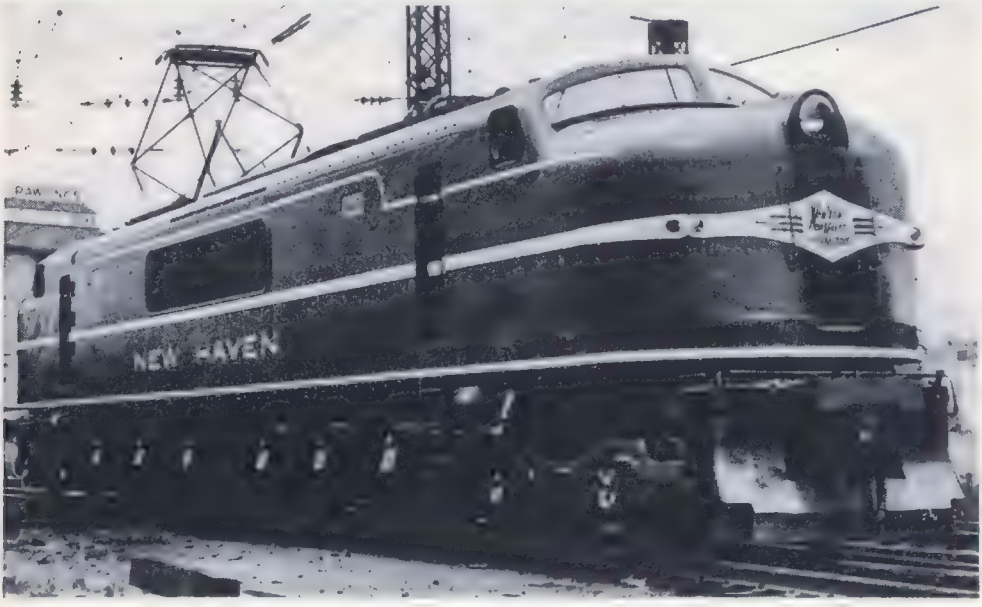
Class	Numbers	Drivers	Engine Weight	Tractive Effort	Builder & Date
		B-B (Switcher) Type			
EY-1	3, 4	36	59,000	1,250	Baldwin, 1914
		B-B (Switcher) Type			
EY-2	0200	63	158,000	39,500	Baldwin, 1911
EY-2	0201–0204, 0206–0214	63	159,200	39,800	Baldwin, 1911
EY-2a	0215	63	159,200	39,800	Baldwin, 1911
EY-3	0216, 0217	42	211,500	52,800	GE, 1926
EY-2b	0218–0223	63	181,000	45,200	Baldwin, 1927
		1C1 + 1C1 (Passenger) Type			
EP-2	0300–0304	63	350,000	47,500	Baldwin, 1919
EP-2	0305–0311	63	356,020	47,500	Baldwin, 1923
EP-2	0312–0316	63	356,020	47,500	Baldwin, 1924
EP-2	0317–0321	63	357,900	47,500	Baldwin, 1927
EP-2	0322–0324	63	356,600	47,500	Baldwin, 1927
EP-2	0325, 0326	63	356,600	47,500	Baldwin, 1928

the NEW HAVEN

Class	Numbers	Drivers	Engine Weight	Tractive Effort	Builder & Date
		2C + C2 (Passenger) Type			
EP-3a	0350	56	403,500	68,400	GE, 1931
EP 3b	0351–0359	56	403,500	68,400	GE, 1931
EP-4	0360–0365	56	432,000	68,200	GE, 1938
		1B + B1 (Freight) Type			
EF-1	073–075	63	242,400	44,800	Baldwin, 1912
EF-1	078–081, 083, 084, 086–092	63	232,300	43,500	Baldwin, 1912
EF-1	093–096, 098–0102, 0104, 0107, 0109–0111	63	232,300	43,500	Baldwin, 1913
		2C + C2 (Freight & Passenger) Type			
EF-3b	0150–0154	57	492,000	90,000	Baldwin, 1942
EF-3a	0155–0159	57	493,000	90,000	GE, 1943

Most New Haven Diesel-electric locomotives are Alcos, such as No. 0701, an A1A-A1A passenger-freight type in the DER-la class, turned out in 1941

Photo above by F. B. Jordan



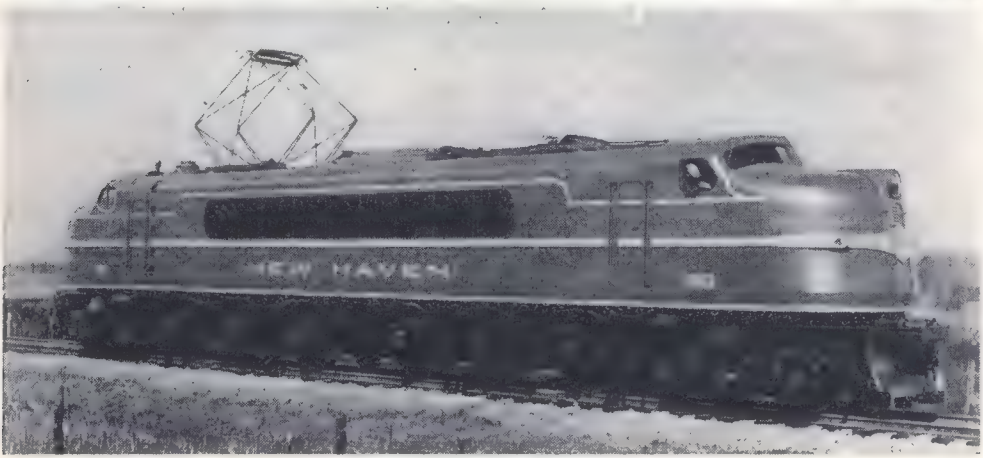
Freight, switcher and passenger electric power, respectively. No. 093, *top*, is a Baldwin product dating back to 1913; No. 0217, *center*, a '26 GE, and No. 0151, a '42 GE

Diesel-Electrics

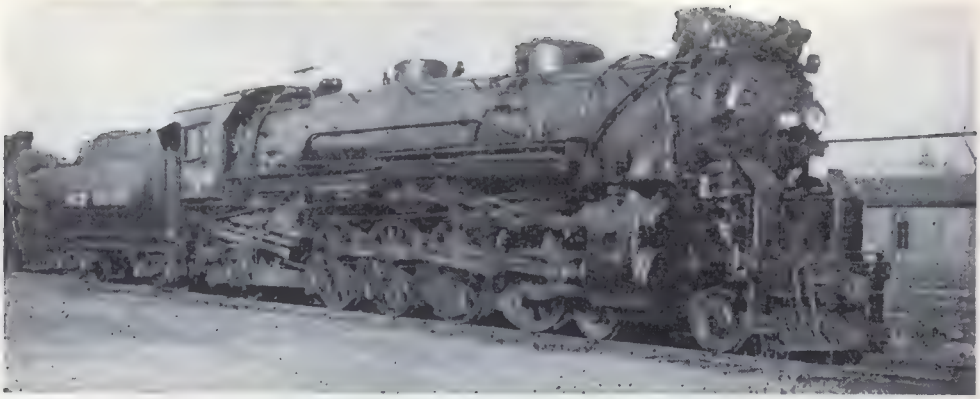
Class	Numbers	Drivers	Horsepower	Engine Weight	Tractive Effort	Builder & Date
B-B (Switcher) Type						
DEY-5	0600–0621	40	1000	230,000	57,500	Alco, 1944
DEY-6	630–639	40	1200	245,000	61,250	L-H, 1950
DEY-4	0800–0806	33	380	88,000	22,000	GE, 1941
DEY-4	0807–0816	33	380	88,000	22,000	GE, 1945
DEY-4	0817, 0818	33	380	88,000	22,000	GE, 1945
DEY-1	0900	40	600	200,000	50,000	Alco, 1931
DEY-2	0901–0905	33	660	196,000	49,000	GE, 1936
DEY-2a	0906–0910	33	600	195,000	48,750	GE, 1936
DEY-1a	0911–0920	40	630	199,000	49,750	Alco, 1938
DEY-1b	0921, 0922	40	660	196,000	49,000	Alco, 1939
DEY-1b	0923–0930	40	660	196,000	49,000	Alco, 1940
DEY-3	0931–0940	40	660	198,000	49,500	Alco, 1941
DEY-3	0941–0950	40	660	198,000	49,500	Alco, 1942
DEY-3	0951–0957	40	660	198,000	49,500	Alco, 1943
DEY-3	0958–0970	40	660	198,000	49,500	Alco, 1944
DEY-3	0971–0976	40	660	198,000	49,500	Alco, 1947
DEY-3	0977–0992	40	660	198,000	49,500	Alco, 1948
DEY-3	0993–0995	40	660	198,000	49,500	Alco, 1949
B-B (Passenger-Freight Switcher) Type						
DERS-2b	0500–0506	40	1500	245,000	61,250	Alco, 1947
DERS-2b	0507–0516	40	1500	245,000	61,250	Alco, 1948
DERS-2c	517–536	40	1600	248,600	62,150	Alco, 1950
DERS-3	560–569	42	1600	253,000	63,250	F-M, 1950
DERS-1b	0660–0671	40	1000	243,000	60,750	Alco, 1948
A1A-A1A (Passenger & Freight) Type						
DER-1a	0700–0703	40	2000	352,700	58,750	Alco, 1941
DER-1a	0704–0709	40	2000	352,700	58,750	Alco, 1942
DER-1b	0710–0717	40	2000	357,500	59,500	Alco, 1942
DER-1b	0718, 0719	40	2000	357,500	59,500	Alco, 1943
DER-1b	0720–0737	40	2000	357,500	59,500	Alco, 1944
DER-1b	0738–0749	40	2000	357,500	59,500	Alco, 1945
DER-1c	0750–0759	40	2000	357,500	59,500	Alco, 1945
DER-3a	0760–0769	40	2000	307,500	51,750	Alco, 1948
DER-3a	0770–0786	40	2000	307,500	51,750	Alco, 1949
B-A1A (Passenger & Freight) Type						
DER-4	790–799	42	2400	306,000	62,870	F-M, 1951
B-B (Freight) Type						
DER-2a	0400–0429	40	1500	240,600	60,150	Alco, 1947
DER-2b	0450–0464	40	1500	236,400	59,100	Alco, 1947

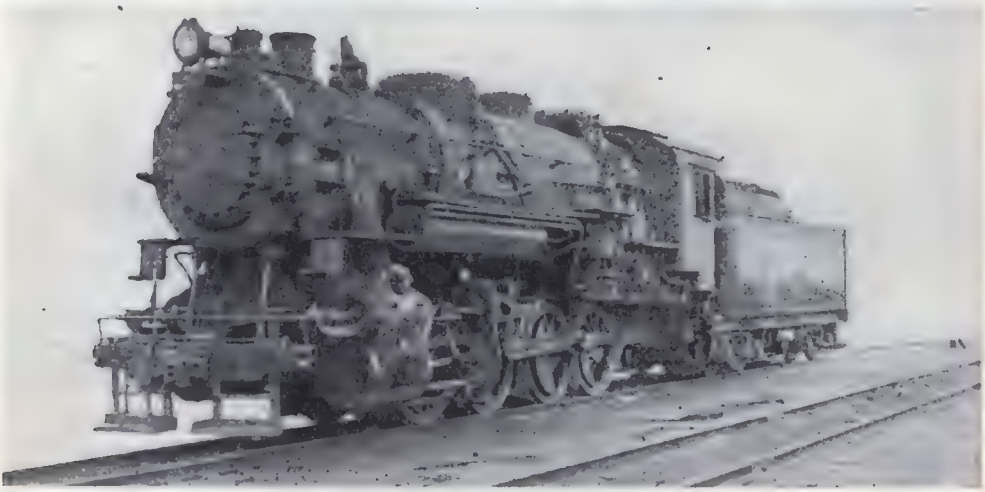
Steam Locomotives

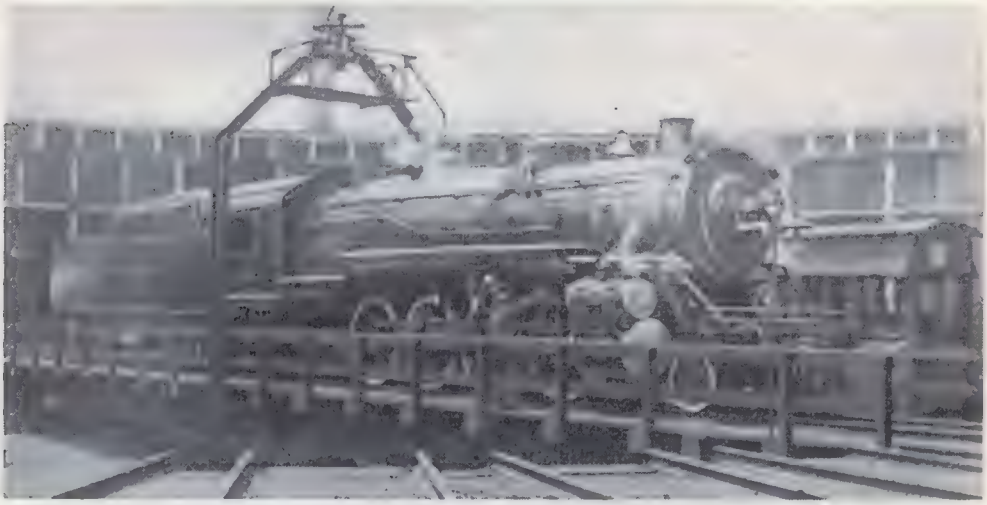
Class	Numbers	Cylinders	Drivers	Pressure	Engine Weight	Tractive Effort	Builder & Date
0-6-0 (Switcher) Type							
T-4	2305	19 x 26	51	200	162,000	31,286	RI, 1902
T-4	2339	19 x 26	51	200	162,000	31,286	Alco, 1904
T-3	2353	20 x 24	51	180	144,600	28,800	Alco, 1907
0-8-0 (Switcher) Type							
Y-3	3401–3403, 3406 3432, 3434	25 x 28	51	190	216,000	55,360	Alco, 1920
Y-3	3410, 3411, 3413, 3414	25 x 28	51	190	219,000	55,360	Alco, 1923
Y-3	3415, 3420–3422, 3426,	25 x 28	51	190	219,000	55,360	Alco, 1922
Y-4	3600, 3603, 3604	22 x 28	57	200	247,000	60,600	Alco, 1924
Y-4-a	3610, 3611, 3613, 3615	22 x 28	57	200	247,000	60,600	Alco, 1927
2-6-0 (Mogul) Type							
K-1-b	341	20 x 28	63	200	153,000	30,223	Alco, 1905
K-1-b	365	20 x 28	63	200	151,000	30,223	Alco, 1904
K-1-d	466, 468	22 x 28	63	190	162,950	34,700	Baldwin, '05
2-8-2 (Mikado) Type							
J-1	3005–3007, 3010, 3013, 3014, 3016, 3017, 3020, 3022, 3023	25 x 30	63	200	251,750	50,600	Alco, 1916
4-6-2 (Pacific) Type							
I-2	1301, 1302, 1304, 1312, 1318, 1325, 1327, 1335, 1337, 1343	24 x 28	73	200	251,500	37,558	Alco, 1913
I-1	1003, 1004, 1006	23 x 28	73	200	234,400	34,493	Alco, 1907
I-4-f	1353, 1357, 1364, 1387, 1388, 1396	25 x 28	79	200	291,000	37,650	Alco, 1916
I-4-e	1372	25 x 28	79	200	287,500		Alco, 1916
4-8-2 (Mountain) Type							
R-1-b	3323, 3325, 3329	27 x 30	69	200	334,000	53,900	Alco, 1920
R-1-b	3340, 3342, 3344	27 x 30	69	200	334,000	53,900	Alco, 1924



Passenger pullers, all electric on the nation's classiest commuter line No. 0353, *top*, and No. 0361, *bottom*, were outshopped by GE in the Thirties; No. 0321, *center*, is a pre-depression Baldwin







Harry B. Adams

Not much steam left on the New Haven, and practically all Alco stuff, mainly 0-8-0s and ***Pacifics.*** No ***Pacific*** here though—Mountain 3340, ***top***; eight-wheel switcher No. 3604, ***center***, and ***Mikado*** 3013, ***bottom***

Pennsylvania Railroad

Older form of motive power not threatened by Dieselization programs, in 1951, is represented by these GG1s. Pennsy owns 139 of them, works them hard on the New York-Philadelphia-Washington, New York-Philadelphia-Harrisburg runs. They were designed for 100 mph. speed on level, tangent track

Index for 1951

AGAIN we offer a detailed, cross-reference index of material used in *Railroad Magazine*. As in the past the 1951 listing carries the item, followed by the month and page. Asterisks (*) indicate pictures. The list is published mainly to serve readers who save their old copies and who want to check back on elusive bits of information. We've also considered the needs of railroaders, historians, students, journalists, etc.

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MKT Railroad

Old Man River, on perennial rampage, struck Katy hard 35 miles south of St. Louis, when flood waters took out embankment with 860 feet of track and left hole 67 feet deep. Katy built mile-long "shoo-fly" around "Big Hole" in six days

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Frank McKinlay, for Rail Photo Service

Vanishing American. As more and more steam power is doomed by the Diesel stampede, leviathans like NP's 4-6-6-4 *Mallets* are slated for the scrap drive. NP through freight service is scheduled for complete Dieselization this year

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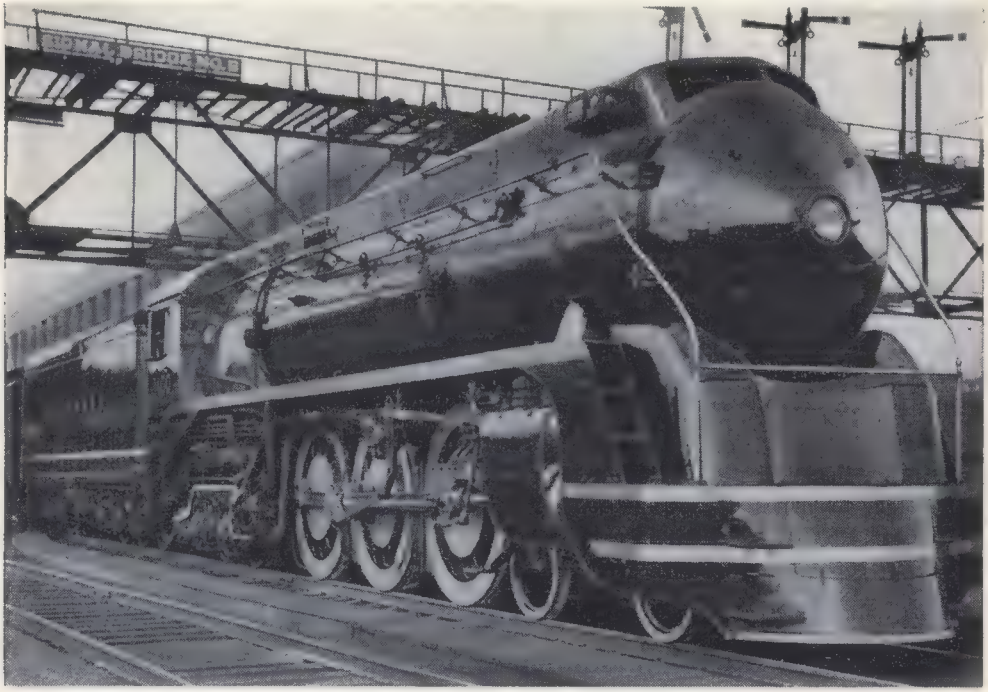
First of Baldwin-built streamlined *Hudsons*, New Haven's 1400 and nine sisters have gone to the torch. Shown making maiden trip on *Merchant's Limited*, 1400 was brand, spanking new only 15 years ago, in 1937

H. W. Pontin, for Rail Photo Service



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Baltimore & Ohio

View from ship's bridge shows new $5 million B&O pier at Baltimore designed for speedy unloading, ship to rail, of improved ores. In *center* in huge bucket which takes 15-ton bite from ship's cargo, delivers it to bin, *left center.* Bin feeds ore onto conveyor belt which carries it to scale house, where it is automatically weighed and dumped into hopper trains

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ERIE: Jan. 12, 23, 27, *Starrucca Viaduct,* 72*, 73, 101-102, 104, 106-107, 125, 141; Feb. 71*, 75; Mar. 131; Apr. 48, 69-70, 139-140; May 24, 25, 29, 32*-34, 36, 37, 72, 121, 127; June 20*, 23*, 29, 33, 40, 42*, 128; July 8, 20, 123; Aug. 67, 145; Sept. *Cover, Erie's Flying Saucer,* 12*-25, *Erie Engines,* 26*-41*, *Graham Cutoff,* 42*-50*, 64*-65*, 84-85, 129, 131; Oct. 6, 8, *Upgrade to Ararat,* 40*-43*, 45*, 47*, 122, 136*, 138-139; Nov. 45; Dec. 128, 129
ERIE & WYOMING VALLEY: July 68*
ESQUIMALT & NANAIMO: Sept. 52;
EUROPEAN & NORTH AMERICA: May 62; Sept. 127-126
EVANS AUTO RAILERS: Aug. 87
EVANSVILLE & TERRE HAUTE: Aug. 68

FAIRCHILD & NORTH EASTERN: Jan. 132
FAR TOTTERING & OYSTER CREEK RAILWAY: Cartoonist Emmett's locomotive *Nellie,* Aug. 125*
FELL DIESEL LOCOMOTIVE: Oct. 62*
FIAT RAILCAR: May 56*
FIDDLETOWN & COPPEROPOLIS: Jan. 124*; Feb. 126*; Mar. 122*; Apr. 120*, 122-124; May 122*; June 120*; July 122*; Aug. 122*; Sept. 124*, 131; Oct. 124*; Nov. 122*; Dec. 120*
FIRE CAR: On New York Central, Mar. 63
FIREMEN: Jan. 47*, 104, 129; Mar. 31*, 41*, 51*, 61*, 76, 78, 136; Chinese lady "fireman", Apr. 50*, 52*, 75, 127*; May 82, 140; June 124, 125, 136; July 33*, 51*; Aug. 113*, 124; Sept. 19*, 28*, 91, *South Park Bogie,* 106-122; Oct. 43*, 47*; Nov. 24*, 28*, 61, 121*, 123, 124*, 131, 134; Dec. 32*
FIRST RAILWAY CASUALTY: Mar. 94*-95*
FLAGMAN: Apr. 75, 122; June 35*, Aug. 20*; *Duke Vs. Flagman,* Sept. 133-135; Oct. 129, 130
FLOODS: *Turkey Creek Booms Again,* Feb. 98-102; Sept. 137*, 138; Oct. 39*; Nov. 64; Dec. 91
FLORIDA EAST COAST: Jan. 131; Mar. 128; Apr. 24, 34, 43, 48
FORNEY, MATTHIAS N.: Jan. 58, 60, 132*; Mar. 56, 57
FORNEYS: January 60, 62*, 128 and 132*
FORT COLLINS MUNICIPAL RAILWAY: June 96; July 86; Nov. 91, 94*
FORT DODGE, DES MOINES & SOUTHERN: May 98; June 136*; July 88-89
FORT WORTH & DENVER CITY: Apr. 35, 48
FRANKFORT & CINCINNATI: Apr. 125*
FREIGHT TRAIN OPERATING EFFICIENCY: Jan. 76
FRENCH RAILWAYS: Apr. 134*; Aug. 65*
FRISCO: Feb. 99; Apr. 25, 40, 49, 124, 127; June 45, 48*, 51; Diesels named after horses, July 124-125*; Aug. 135; Sept. 52*, 136; Oct. 35, 127; Nov. 10, 62*-63*; Dec. 53, 67
FUSEES: May 136; *They Burn by Night,* Aug. 12*-21

GENERAL: Jan. 129; June 34*; Sept. 138; Oct. 137*, 141*; Nov. 127
GENESEE & WYOMING: Jan. 101
GEORGIA RAILROAD: May 29; June 54; Aug. 63; Sept. 130
GERMANY: Jan. 15; May 126; *Wuppertal monorail,* July 59, 60*, 61; Aug. 92-93; Dec. 88
GRAND TRUNK WESTERN: Jan. 105; Mar. 128; Apr. 42, 43, 47; May 10*, 23; June 37, 44; Aug. 83; Dec. 128*
GRASSE RIVER RAILROAD: June 128*
GRAVEYARDS UNDERPASSED BY RAILROADS: Mar. 128; Apr. 130
GREAT INDIAN PENINSULA RAILWAY: Jan. 31, 32*, 33, 35, 41, 42*, 43*
GREAT NORTHERN: *Train on the Highway,* Jan. 6, 8, 10*, 126*, 131; Feb. 57, 58; Mar. 126*, 139, 140, 141*; Apr. 27, 32*, 35, 48, 86, 87, 91*, 133; May 42, 88, 89-93, 128; *Stranger Than Truth* (Part III), June 6, 8, 10, 12, 40*, 43, 126*, 137*; July 36*; Aug. 125; Sept. 67*, 69*, 74, 129*, 140; Oct. 6, 39, 57*, 68, 70*, 75-79; Nov. 19, 92, 129-130; Dec. 64
GREAT WESTERN: Colorado sugar road, Jan. 23
GREEN BAY & WESTERN: *Badger State Road,* Nov. 14*-29
GRIZZLY FLATS RAILROAD: July 131*
GULF, COLORADO & SANTA FE: *Turkey Creek Booms Again,* Feb. 98-101, 134*
GULF, MOBILE & OHIO: Feb. 112*; Apr. 35, 48; May 16; Sept. 62*, *We Like Living by the Line,* 95-96; *Roster,* Nov. 110*-111*; Dec. 130
GULF, MOBILE & NORTHERN: Sept. 96; Nov. 36

HALL SIGNALS: Mar. 53
HAMILTON STREET RAILWAY: May 105; Aug. 88, 92*, 93*
HARLEM & MANHATTANVILLE: Oct. 90*
HAWAII: Mar. 128-129; May 137-138
HEISLER-GEARED ENGINE: Jan. 126*

HENNESSY LUBRICATOR: July 59
HIGHBALL SIGNALS: Jan. 146*; May 23*, 31
HOBO: Origin of term, Nov. 29
HOCKING-SUNDAY CREEK: Jan. 14, 15*
HOCKING VALLEY DIVISION: Jan. 82; June 145
HOLTON INTERURBAN: July 133
HOOSAC TUNNEL & WILMINGTON: Oct. 125, 127

Central of Vermont

Northfield, Vt. was scene last Oct. 6 of reenactment of golden spike ceremony of 1869. Northfield is seat of Norwich University which 100 years ago graduated Maj. Gen. G. M. Dodge, builder of first trans-continental railroad

HORSECARS: August 96; December 38
HORSES: May 132; June 124; July 124-125; Oct. 71*
HORSESHOE CURVE: Sierra Blanca on Espee, June 72*-73*; Aug. 97
HOSPITAL CAR: Apr. 124*
HOTEL CARS: Aug. 64-65
HUDSON & MANHATTAN: Feb. 69, 73; Apr. 101; Aug. 91, 92
HUDSON RIVER RAILROAD: *Motive Power of the Hudson River Railroad,* Mar. 26*-33*; May 37*, 41; Dec. 29
HUNTSVILLE & LAKE OF BAYS RAILROAD: Aug. 130
HURLEY TRACK LAYING MACHINE: Sept. 44*

ILLINOIS CENTRAL: Jan. 23, 66*-67*; Apr. 23, 35, 37, 43, 48, 73*, 126, 127; *Roster* (Part I), May 118*-121*, 138; June 35*, *Roster* (Part II), 104*-107*; Aug. 28-29, 30*, 31*, 33-41, 48, 66, 68, 132*; Sept. 67, 78; Oct. 29, 35, 63, 127; Nov. 64, 127
ILLINOIS TERMINAL: Jan. 95; *Illinois Terminal Railroad,* Dec. 80*-87
IMPACT RECORDER: Dec. 63*-64
INDIA: *India's Iron Pikes,* Jan. 28*-48*
INDIANA RAILROAD: Jan. 99
INTERCHANGE: Jan. 108; Aug. 66*; Oct. 63, 95; Nov. 19, 22, 26, 89; Dec. 37, 38
INTERLOCKING TOWERS: Jan. 98*, *From Scale to Prototype* (NYC), 100-109, 139-140; Feb. 60*; Apr. *Cover,* July 55, Rome, Italy, 66*, 69*, 82*; Aug. 57*; Sept. 137*; Oct. 129
INTERNATIONAL-GREAT NORTHERN: June 40, 43, 57; July 21-22
INTERNATIONAL RAILWAY: Feb. 74-75; Sept. 84-85
IRISH MAIL: Oldest name train, Mar. 63
IRELAND: Apr. 129
ITALY: Fiat railcar, May 56*; *All rails lead to Rome,* July 66*, 67

JACKSON MULTIPLE TAMPER: Feb. 50
JAMES, JESSE: Sept. 133; Oct. 30
JAMES, WILLIAM T.: Jan. 52, 57, 58
JAPAN: Mar. 123, 125; *Japan, A Juicefan's Paradise,* Apr. 95*-101*, 102; May 126; June 51-52; Aug. 88-89, 92, 93; Sept. 82, 84*; Dec. 121
JEFFERSONVILLE, MADISON & INDIANAPOLIS: Apr. 129; May 37
JERVIS, JOHN B.: Jan. 51, 52, 55
JODHPUR RAILWAY: Jan. 33, 39
JONES, CASEY: Nov. 10, 123
JOSLYN, D. L.: *Shop Photographer* (SP), Dec. 130*-134, 136, 138*, 140-142
JUDAH, THEODORE DEHONE: Dec. 45*

KANSAS CITY, KAW VALLEY: Apr. 14
KANSAS CITY SOUTHERN: Feb. 52; Oct. 142*; Nov. 35
KANSAS PACIFIC: Sept. 74, 77; Dec. 42
KEWAUNEE, GREEN BAY & WESTERN: Nov. 19, 21, 24, 26-27, 29
KEY SYSTEM: June 95, 96; Nov. 91
KOREA: July 132; Nov. 54*; Dec. 121, 123

LACKAWANNA & WYOMING VALLEY: Mar. 80*-90*; June 96-98; July 145; Oct. 88
LAKE ERIE & WESTERN (CLOVER LEAF ROUTE-NKP): Mar. 125, 127; Apr. 132; Oct. 35; Nov. 123-124; Dec. 36
LAKE SHORE & MICHIGAN SOUTHERN: Jan. 140; May 136; June 23; Nov. 86
LAKE SHORE ELECTRIC RAILWAY: May 99-100; *Lake Shore Electric,* Nov. 76*-90*
LAKESIDE & MARBLEHEAD: Jan. 20, 21*, 23; Nov. 123; Dec. 124
LANCASTER & CHESTER: Oct. 134*
LAND GRANTS: Aug. 28*-49*; Sept. 64*-77; Oct. 68*-79*; Nov. 30*-41; Dec. 40*-53
LANTERN DEPARTMENT ARTICLES: *The Disc Brake,* Jan. 68*-71; *Cast-Iron Wheels,* Feb. 44*-47; *Black Smoke,* Mar. 52*-57; *Drafting the Locomotive,* Apr. 61*-67; *Cylinder Bushings,* May 54*-58; *Air Filters and the Brake Vent Valve,* June 62*-65 and *Simplified Morse,* 65-67; *Driving Box Design,* July 56*-59; *The Cross-Compound Air Compressor,* Aug. 53*-57*; *A New Voice for the Growler,* Sept. 52*-54; *Air Compressor Lubrication,* Oct. 58*-62; *Bracing the Boiler,* Nov. 56, 57*-60; *Locomotive Power,* Dec. 57*-61
LEHIGH & HUDSON RIVER: Apr. 146*
LEHIGH VALLEY: Jan. 12, 60, 61, 63, 65, 101, 106, 107, 125, 135; Mar. 78, 123*; Apr. 37, 48; May 127; Oct. 35, 126*; Nov. 45; Dec. 67, 69
LEHIGH VALLEY TRANSIT: Aug. 93*; Nov. 92
LIBERIA MINING COMPANY RAILROAD: Mar. 57, 59
LITTLE MIAMI RAIL ROAD: Feb. 50*; May 35*
LIVE STEAMERS: *Live Steamers in the Redwoods,* Aug. 78*-80*
LIVERPOOL & MANCHESTER: Mar. 53; May 27, 45
LOCOMOTIVE POWER: Means of measuring, Dec. 57*-61
LOCOMOTIVE ROSTERS: *Carolina, Clinchfield & Ohio,* Jan. 110*-111*, 144*; *Chicago, Milwaukee, St. Paul & Pacific* (Part I, steam), Feb. 78*-81*; *Milwaukee* (Part II, Diesel and electric), Mar. 114*-121*; *Denver & Rio Grande Western,* Apr. 106*-109*; *Long Island Diesels,* May 52 and *Illinois Central* (Part I, steam), May 118*-121*; *Illinois Central* (Part II, steam and Diesel), June 104*-107*; *Virginian,* July 106*-112*; *Central Railroad of New Jersey,* Aug. 108*-113*; *Missouri Pacific,* Sept. 98*-104*; *Bes-*

semer & Lake Erie, Oct. 97*-99*; *Gulf, Mobile & Ohio,* Nov. 110*-111*; *Duluth, Missabe & Iron Range,* Dec. 102*-103*
LOGGING ROADS: Jan. 23, 129*, 132; June 128*; Aug. 128; Sept. 52; Oct. 125*; Dec. 125
LONDON, MIDLAND & SCOTTISH: Feb. 132, 134; Mar. 36*, 63; May 10, 45; Aug. 59-60; Nov. 125; Dec. 64
LONG ISLAND RAIL ROAD: Jan. 73-74, 135; Mar. 85-86; *The Long Island Goes Diesel,* May 46*-53*; June 90, 93, 94*; July 64, 138; Oct. 62-63, 134; Nov. 8
LOOKOUT MOUNTAIN RAILWAY: Jan. 127-128
LORAIN STREET RAILROAD: Nov. 78*, 79*, 83, 88, 90
LOS ANGELES TRANSIT LINES: Mar. 93*
LOUISA RAIL ROAD: May 30*
LOUISVILLE & NASHVILLE: Feb. 129-130, 135-136, 139; Mar. 61, 63, 128; Apr. 37, 48, 125, 126; May 136; *Kid Hoggers: Now and Then,* June 129*; July 65, 123, 132; Aug. 62, 63, 128*; Sept. 96, 130, 139; Oct. 133, 134; Nov. 10
LOUISVILLE RAILWAYS: July 86
LUDINGTON & NORTHERN: Oct. 132*

McKAY & ALDUS: *Pioneer,* Apr. 66
McKEEN CARS: *Born Thirty Years Too Soon,* Jan. 14*-27; May 129; Nov. 123; Dec. 124
MAINE CENTRAL: Jan. 130; Feb. 50; Mar. 63; June 132*; Aug. 64*; Sept. 55*, 127-128; *Dots and Dashes from the Past,* Oct. 92-96, 126*
MAMMOTH CAVE RAILROAD: Mar. 61, 63
MANHATTAN BRIDGE THREE CENT LINE: Oct. 84*
MANISTIQUE & LAKE SUPERIOR: Nov. 19
MANITOU & PIKES PEAK: Jan. 75*, 130
MAPS: *North Jersey Rapid Transit,* Feb. 69; *Patchogue Battery Car Line,* June 91; *Sweden,* July 41; *Orleans-Kenner Traction and New Orleans Public Service,* Sept. 78; *Green Bay & Western,* Nov. 21, *Lake Shore Electric and Cleveland & Southwestern,* 80; *New York Central Lines in New York City and Vicinity,* Dec. 16
MARCELLUS & OTISCO LAKE: Jan. 99
MARINE RAILROADING: Jan. 73-74, 127; *Operation: Tidewater.* (Western Pacific), Mar. 16*-25; Apr. 124*; Aug. 136*; Sept. 18*. 19*, 20*, 56*, 57*, 58*-59, 72*; Oct. 62-63, 65, 67; Nov. 14*, 18*, 19, *Big Mac* (CNJ), 42*-53*, 131*; Dec. 67, 69
MASON, WILLIAM: Jan. 27, 58, 62*; Apr. 71*; Sept. 106
MECHANICAL STOOL PIGEON: Feb. 51-52
MEMPHIS & CHARLESTON: Dec. 65
METROPOLITAN RAILWAY: Nov. 92
METROPOLITAN STREET RAILWAY: Feb. 76; Oct. 88-90
METROPOLITAN TRANSIT AUTHORITY: Feb. 75*; Mar. 93; July 65, 67; Dec. 88-90*
MEXICO: Apr. 102*, 103; *Citizens' Armed Invasion of Mexico,* May 74-82; *Tex-Mex, An International Switching Line,* June 56*-61*; July 88, 89*; Oct. 67*; Dec. 124
MICHIGAN CENTRAL: Jan. 105-107; Apr. 39, 44, 48; June 49-50; Sept. 137*; Oct. 21; Nov. 30
MIDDLETOWN & NEW JERSEY: Oct. 139
MILITARY RAILROADING: In India, Jan. 39. Civil War, 138; *Flight into Egypt,* Mar. 34-51*; July 132; Korea, Nov. 54*; Dec. 121, 123
MILWAUKEE & MISSISSIPPI: Mar. 134; Apr. 71*; May 4*, 38*
MINNEAPOLIS & ST. LOUIS: Apr. 50*; Nov. 18
MINNEAPOLIS, ST. PAUL & SAULT ST. MARIE (SOO LINE): Jan. 27, 132; July 145; Aug. 134*; Oct. 123; Nov. 18-19, 23, 24, 25
MISSOURI & ARKANSAS: July 65
MISSOURI-KANSAS-TEXAS (KATY): Jan. 128-129; Feb. 102; Apr. 25, 37, 48; May 72*-73*; July 136; Aug. 127, 132-133; Oct. 134*; Dec. 42*, 44*, 47*, 49*, 50
MISSOURI-ILLINOIS: Sept. 136; Transfer steamboat *Ste. Genevieve,* Oct. 63, 65, 67; Nov. 10
MISSOURI PACIFIC: Jan. 96; Feb. 57, 132; Mar. 142*; Apr. 30*, 37, 43, 48, 51*, 70*, 133; May 37-38; June 43, 44, 45, 46*, 47*, 48, 56*, 57*, 58*, 59, 61*; July 68; Aug. 14*, First in train radio, 67; *Roster,* Sept. 89*-104*, 125, 136; Nov. 10, 131*; Dec. 43*, 46*, 53
MOBILE & OHIO: Sept. 96, 136; Nov. 10
MOBILE LIGHT & RAILROAD: May 102*
MODEL RAILROADING: *From Scale to Prototype,* Jan. 100-109, 133, 134*, 135; Mar. 130*; Apr. 94, 136, 142*; May 141*; June 34*, *Union Pacific Caboose,* 81*-83*, 123*; July 137; *Live Steamers in the Redwoods,* Aug. 78*-80*; Sept. 125, 136, 138; Oct. 137*, 141*; Nov. 10, 95; *Locomotive Atlantic with Imlay Coaches* (B&O), Dec. 70*-73*
MOHAWK & HUDSON: Jan. 51, 55*; May 29
MONORAILS: July 59, 60*, 61; Dec. 88
MONTGOMERY STREET RAILWAY: May 102, 193*
MONTREAL & SOUTHERN COUNTIES RAILWAY: Apr. 102*, 103, 104*
MOTLEY COUNTY: Jan. 23, 24
MOTT, HERB: July 134*
MOUNT TAMALPAIS & MUIR WOODS: July 135*

MOUNT UNCANOONUC INCLINED RAILROAD: Feb. 139; June 128; Nov. 94
MOUNT WASHINGTON COG RAILWAY: Apr. May 127; May 60*, 61*
MOUSAM RIVER RAILROAD: Jan. 99; Feb. 77
MUNICIPAL RAILWAY OF SAN FRANCISCO: Mar. 93; June 95, 96*, 98*

NARROW-GAGES: India, Jan. 31-41*, 129*, 132; Feb. 56, 142*; Mar. 125; Apr. 70*, 71, 85, 99, 109, 129, 132*; May 132*; June 130*; July 45, *East Broad Top*, 46*-53*, 65, 67, *D&RGW San Juan ends service*, 118*-121*, 123; Aug. 69*, 98, 128, 129*, 138*; *South Park* Sept. 106-122, 140; Oct. 32, 90*, 125; Nov. 127; Dec. 88-89, 123, 124, 125*, 126-127
NASHVILLE, CHATTANOOGA & ST. LOUIS: Jan. 129, 132; May 42, 140; Sept. 130; Nov. 55*, 127
NASHVILLE-FRANKLIN RY.: Nov. 93*
NATHAN AIRCHIME HORN: *A New Voice for the Growler*, Sept. 52*-55
NATIONAL OF MEXICO. June 57, 58*, 59*
NELSON & ALBEMARLE: Feb. 16*
NEW CASTLE & FRENCHTOWN: May 24*, 29; Oldest railroad passenger ticket office, Nov. 142*
NEWFOUNDLAND: Sept. 140
NEW JERSEY RAILROAD: May 35*
NEW ORLEANS PUBLIC SERVICE: May 101, 105; July 132; Sept. 78, 79*
NEW YORK & MANHATTAN BEACH: Jan. 62*
NEW YORK & OSWEGO MIDLAND: May 44*
NEW YORK & QUEENS COUNTY TRACTION: July 88*, 90; Oct. 81, 83, 84
NEW YORK CENTRAL: *Rochester Vig-*

Missouri Pacific Lines

New deliveries swelled the Diesel rosters in 1951. *Above:* MoPac's 4107 is an EMD road-switcher. *Below:* Aces, back to back. No. 8009 is a double A-unit Alco-built passenger locomotive

New York Central

NYC 1234 made last steam run on holdout Putnam Division last September. This was also last NYC steam run into New York City. According to engineer it was like getting rid of an old car—"You hate to do it but you know you should." *Right, below:* One of 9 Diesels taking over on Put

nette, Jan. 13*, 26, 63, 64*, *From Scale to Prototype,* 100-109, 138; Feb. 54*-55*, 60, 62, 63*, 125, 127, 132*; *Motive Power of the Hudson River Railroad,* Mar. 26*-33*, 63, 131; Apr. *Cover,* 6, 21*, 24, 37, 39, 44, 48, 51*; May 29, 31*, 33-37, 41, 125, 126, 135*, 136, 145; *Skyscraper Station* (Cleveland Union Terminal), June 18*-33, 40, 46, 47, 51*, 68*, 72-73, 95*, 123*, 128, 137; July 65*, 111, 117*, 129-130, 132, 136, 137; Aug. 57*, 65, 66*, 94*-95*, 96, 97*, 135, 137; Sept. 60*, 61*, 96, 123, 125, 129*, 139; Oct. 22, 123; Nov. 12, 61*-62, 86, 123, 124, 127, 139*; *Commuting on the New York Central,* Dec. 14*-33, 38, 55*, 58, 60*, 61, 66*, 67, 69, 126*, 127-130

NEW YORK, CHICAGO & ST. LOUIS (NICKEL PLATE): Jan. 108; Feb. 52, 109*; Mar. 125; Apr. 39, 48, 130*; June 21, 22*-23*, 24*, 25, 27, 29, 30*, 31, 32*, 33, 36*, 37, 39, 43, 45, 49*, 52*, 53*, 99, 124; July 136; Aug. 52*, 145; Sept. 136; Dec. 35-36, 119, 121, 129*

NEW YORK CITY TRANSIT SYSTEM: Jan. 127, 139*; Feb. 137; May 105; Sept. 85*; Oct. 80*-84*

NEW YORK, NEW HAVEN & HARTFORD: Feb. 125, 127; Apr. 22*, 39, 46, 48, 132, 137*; May 36*, 37, 136-137; June 29, 47, 71; Aug. 136*; Oct. 63; Nov. 65*, 123, 145; Dec. 18

NEW YORK, ONTARIO & WESTERN: Apr. 20; May 44*, 144*; Aug. 132; Sept. 32; Oct. 139; Nov. 121; Dec. 130

NEW YORK STATE RAILWAYS: Oct. 88

NEW YORK, SUSQUEHANNA & WESTERN: Apr. 23; May 127; Sept. 32

NEW ZEALAND: Feb. 56; Mar. 45; July 136

NIAGARA, ST. CATHERINES & TORONTO: Jan. 97*, 98, 99*; Sept. 85

NIPISSING CENTRAL: May 62

NOR-OESTE DE MEXICO: Oct. 67*

NORFOLK & WESTERN: Feb. 67, 106*; Mar. 128; Apr. 36*, 44, 48, 70-71, 122, 133*, 140; May 33, 61; June 142*; July 136; Aug. 51; Oct. 132*

NORFOLK SOUTHERN: Jan. 33

NORTH JERSEY RAPID TRANSIT: *White Flags Into Oblivion,* Feb. 68*-73

NORTH PENNSYLVANIA RAILROAD: May 39, 41; Aug. 129, 131

NORTH SHORE RAILROAD COMPANY: June 40, 41*, 54; Oct. 134-135

NORTHERN PACIFIC: Jan. 23, 130, 135; Feb. 25, 60*; Mar. 59-61, 128; Apr. 40, 49, 138*; July 127-128; Aug. 48, 127, 138-139; Sept. 64, 66*, 67, 68*, 70*, 71, 72*, 73, 74, 75, 76*, 77, 130; Oct. 73, 75-79*, 125, 131; Nov. 19; Dec. 43, 56*, 63*, 64-65

NORTHERN RAILROAD OF NEW YORK: *Angus Wood's Relic,* July 114-116; Aug. 81

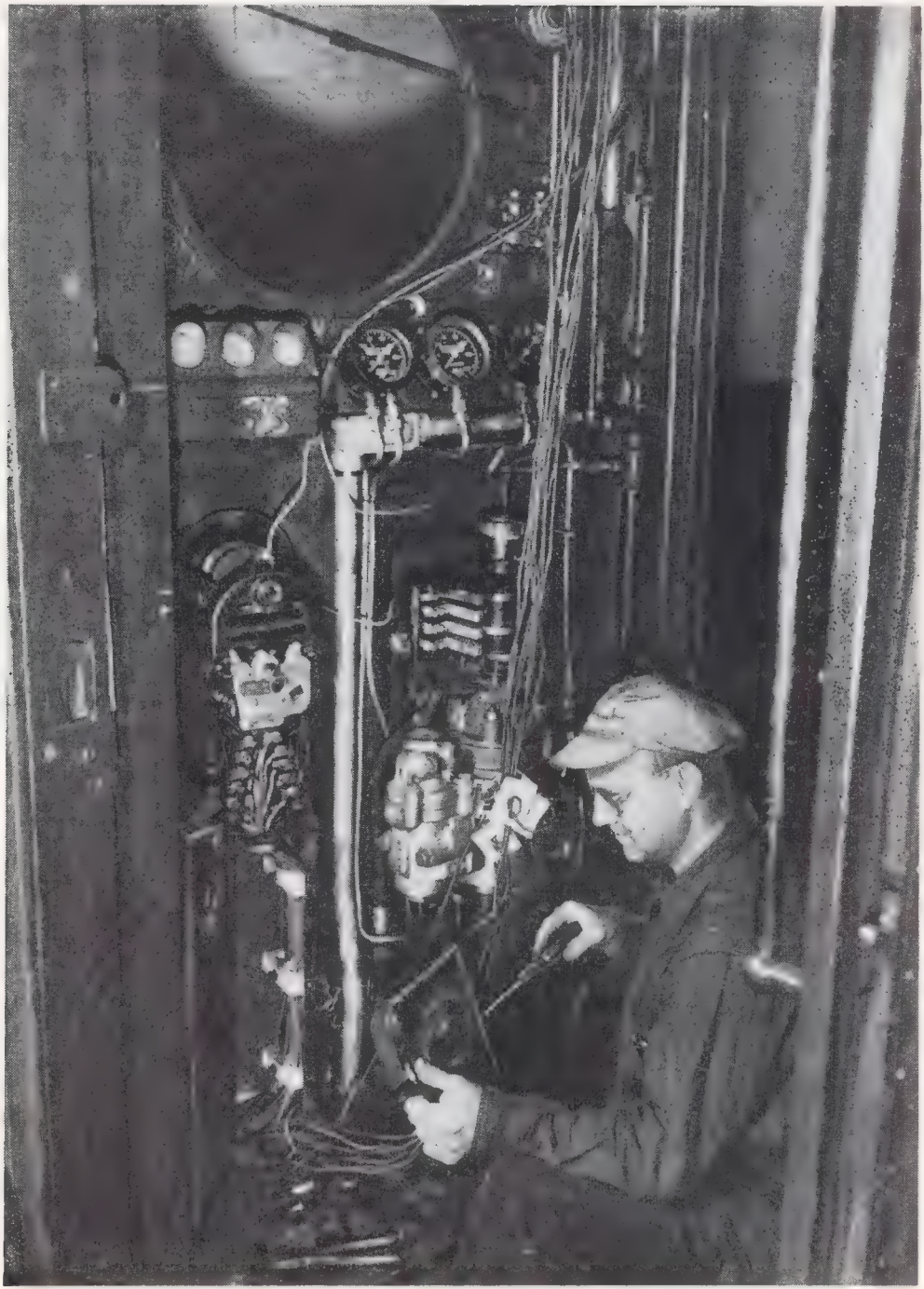
NORTHWESTERN PACIFIC: Jan. 131; June 40, 54; Sept. 90; Oct. 134-135

NORTH WESTERN RAILWAY (INDIA):

Jan. 29-31, 33, 35, 36, 40*, 41-43, 45, 47*
NOTTINGHAM & DERBYSHIRE TRAMWAY: July 83*, 84*, 85

OAHU RAILWAY & LAND COMPANY: Mar. 128; May 137-138
OAKLAND, ANTIOCH & EASTERN RAILWAY: Mar. 20*
OBSERVATION CARS: *Sherbrooke,* Jan. 133; Feb. 112*, 132; Apr. 103; June 95; July 51*, 137
OFFICIAL GUIDE OF THE RAILWAYS: June 38*-40, 54; Aug. 132; Dec. 123
OGDENSBURG & LAKE CHAMPLAIN: *Angus Wood's Relic,* July 114-116; Aug. 81, 82
OLD COLONY RR.: May 34*, June 71-72
OLD PEPPERSAS: Apr. 127
ONTARIO NORTHLAND: May 61-62
OPEN TROLLEY: Apr. 103; Vera Cruz, Mexico, July 89*
OPERATORS: Jan. 136; *Boxcar Blues,* Mar. 6, 8, 10, 12; *Sentimental Episodes,* Apr. 6, 8, 10, 12, 14, *Stranger Than Truth,* 84-93; *Morse Musing,* May 14, 16, *Stranger Than Truth,* June 6, 8, 10, 12, *Simplified Morse,* 65-67; July 17*, Sue Morehead, 18*, 19, 32*, *Angus Wood's Relic,* 114-116, 123, 135*, 138, 139; Lady operator, Aug. 57*, *Hoops and Hookey,* 70-76; Oct. 46*, *Dots and Dashes from the Past,* 92-96, 128, 134; Nov. 124*, *Morse code,* 133; *Terror at Lookout Mountain,* Dec. 6, 8, 10
OREGON PONY: Oct. 139*
OREGON SHORT LINE: Jan. 23; Sept. 73
OREGON-WASHINGTON RAILROAD & NAVIGATION COMPANY: Jan. 23; *The Shannon Convention,* Feb. 38-43; June 133, 127; Aug. 48; Sept. 73
ORLEANS-KENNER TRACTION COMPANY: *The O-K Line,* Sept. 78*, 79, 80*, 81

PACIFIC COAST RAILROAD: January 131
PACIFIC ELECTRIC: Jan. 67*; June 145; Oct. 87*; Dec. 88*-89, 91
PACIFIC GREAT EASTERN: July 145; Sept. 54; Oct. 66*
PALESTINE RAILWAY: Mar. 36
PANAMA: Jan. 135; Aug. 128; Nov. 123
PARIS & ROUEN: Aug. 65*
PASSENGERS CARRIED BY UNITED STATES RAILROADS DAILY: May 61
PENNSYLVANIA: Jan. 12, 23, 27, 52, 59, 61, 62*, 63, 64, 71, 73, 101, 104, 108, 125, 126, 127; *Looking Back,* Feb. 6, 8, 10, 12, 14, 50, 52, 53*, 60, 62, 63*, 65*, 66, 67*; Mar. 128; Apr. 24, 40, 44, 46, 49, 67-68, 78, 121*, 133; May 31, 35-37, 47, 48, 49, 50, 53*, 73; June 27, 29, 40, 50, 127, 128, 137; *Wreck of the 216,* July 6, 855*, 62*-65, 67, 136, 145; Aug. 62-63*, *Roundhouse Ruckus,* 100-108, 133*, 138, 145; Sept. 61, 128; Oct. 40-41*, 67, 99, 122*, 126*, 134; Nov. 12, 45, 63, 65, 125, 131, 133, 134, 142*; Dec. 54*, 64, 65, 143*
PENNSYLVANIA & ATLANTIC: Oct. 10
PENNSYLVANIA COAL COMPANY RAILROAD: Feb. 127*; July 68
PENNSYLVANIA-READING SEASHORE LINES: Apr. 23, 24, 44, 49; Sept. 126-127; Nov. 134
PEORIA, DECATUR & EVANSVILLE: Aug. 68
PERE MARQUETTE: Jan. 107; Feb. 136; Apr. 31, 47; Aug. 123*; Sept. 61; Dec. 128*
PHILADELPHIA TRANSPORTATION COMPANY: July 91; Oct. 87



Long Island Rail Road

In September, 1951, Automatic Train Control became an accomplished fact on at least one branch of the much-maligned, overburdened LIRR. Installation on five other branches is scheduled for completion this year, at a total cost of $6 million. *Above:* Electrician M. Totland wires cab of MU train for ATC

PIEDMONT & NORTHERN: May 101; July 87*, 88
PITTSBURGH & BUTLER: Aug. 92*
PITTSBURGH & LAKE ERIE: Mar. 131; Apr. 24; June 22*-23*
PITTSBURGH & SUSQUEHANNA: Nov. 65
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Long Island Rail Road

Car journal speed governor with contacts which open or close in accordance with impulse from coded track circuits. Behind Car Repairman Herbert Heiser is magic brain—electronic amplifier, decoding units and control relays

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SP Bulletin
Big job begun in 1951, scheduled for 1953 opening is $4½ million retarder yard at Roseville, Calif. Expansion project includes relocation of main line section, installation of 333,000 feet of new rail

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On the Spot

Our Readers Talk It Over With the Editorial Crew

HAROLD D. HOOPES, who painted this month's cover, based his picture on an old photo. "The little tender was loaded with wood for the firebox and, of course, water for the boiler," he writes. "When these were used up on a trip, as sometimes happened, the passengers helped the engine crew to draw water from nearby wells or to cut and gather a fresh supply of wood."

Hoopes, an only child of vaudevillians, spent much of his childhood riding open-

platform coaches of trains in the Mississippi Valley. He wanted to become a locomotive engineer, turned to art instead, and now lives at 419 West 119th St., New York City 27.

* * *

LUCIUS BEEBE and Charles Clegg, co-authors of *Cable Car Carnival,* are working on a new volume of rail legends, *Hear the Train Blow,* while traveling about the country in Beebe's ultra-swanky private railroad car, *Gold Coast,* financed by a tidy income from Beebe's 1000 or so acres of apple orchards near Wenatchee, Wash. They visited the Northwest, where Beebe saw for the first time the vast acreage inherited from his father, who had acquired it in 1905 while touring with railroad-builder Jim Hill.

The *Gold Coast,* formerly Georgia Northern No. 100 but lavishly redecorated, is said to be the only private car in America that still has main-line rails under its trucks—except, of course, for the business cars of rail executives and the Government-owned White House on Wheels that the President uses in riding the high iron. In 1946, when the *Gold Coast* became the rolling home of Beebe and Clegg, they hired a decorator to give it a period look, and modern conveniences.

"We told him," said Beebe—with what *The Portland Oregonian* calls 'silver-filigreed insouciance'—"to copy as much as he could the private car of Leland Stanford, which was a famous explosion of Victorian vulgarity. Babs Hutton had a car with a parlor 23 feet long, so we ordered a parlor 24 feet long. We put in a fireplace, too, because we'd heard somebody else had one."

The fireplace, with its glittering mirror back, is purely ornamental, never used for heating. In the car are marble-topped walnut tables, all bolted down, and easy chairs with antimacassars. There's a mirrored dining room, serviced from a kitchen and a well-stocked larder of alcoholic beverages, not to mention Beebe's master bedroom, a smaller stateroom for Clegg, and quarters for Annie, the maid who cooks and cleans.

"We're old-fashioned people," Lucius remarked blandly. "We wouldn't have a new thing in the car."

One of his visitors, while the car stood on a Portland siding, was Stewart H. Holbrook, former logging camp worker, author of *The Story of American Railroads* and a dozen other books.

Beebe tells us: "Probably to the outrage of the ingenious and gullible who like to disassociate railroading from the very notion of wine and song, I have listed a few saloons throughout the country with names derived from railroading. Some I have only heard of; some may be oldtimers since departed this world. I am sure *Railroad Magazine* readers can add many more. Here is the list:

"The Double Header, Seattle; *All Rails,* Portola, Calif.; *Switch Key,* Fort Worth; *The Clear Track,* Maysville, Ky.; *The Johnson Bar,* Decatur, Ill.; *The Marker Light* and *The Whistle Stop,* Portland, Ore.; *Virginia & Truckee Railroad Bar,* Virginia City, Nev.; *Brakeman's Rest,* Baltimore; *The Green Light,* Providence, R. I., and *The Flying Switch,* Kansas City, Mo.

* * *

AT LAST we find someone who recalls having seen conductors' names painted on cabooses. "Years ago," writes Robert W. Page of 1823 Mt. Vernon Road, Roanoke, Va., "I saw in Potomac Yard a Southern Railway caboose with Conductor Purvis' name and 'Washington Division' painted on its side, and elsewhere on the Southern I saw other cabooses with other names on them.

C. P. Fox, Milwaukee Road

Photographer Fox's son took a brave stand when he saw the Milwaukee Road's huge 245-ton *Northern* at the company shops in the Beer City. Result: a study in contrasts

FIDDLETOWN & COPPEROPOLIS RY.

No. 42 Ice-Packed Grade Crossing
Results in Slight Derailment at Forlorn Flats

by Carl Fallberg

Those I recall were long side-door cabooses, a type now obsolete."

B. F. Young, assistant to the president of the Southern Railway, tells us his road actually did paint conductors' names on cabooses but discontinued the practice about 15 years ago. Incidentally, the Southern was the last big American road to paint the names of veteran hoggers on its engine cabs.

This comes from Harry Dysart of 565 West 6th Street North, Provo, Utah: "My father, a retired conductor, had his name on his caboose for years, on the Southern's Asheville Division. His old nameplate is in his garage at 1381 8th Avenue, Hickory, N. C. I believe he had five or six cabooses during his freight career. Last one I recall was X-2236. Local freight ran only six days a week, but conductors kept their cabooses just the same."

* * *

UNIQUE incident at Birmingham, Ala., on the Atlantic Coast Line: A long freight train was rumbling toward a grade grossing just as a funeral procession on the highway neared the same point. There was not time to stop the train before it came to the crossing, but to let the mourners continue without delay, the freight crew stopped on the crossing, cut off the cars that hadn't reached the crossing, and pulled the rest of the train a short distance ahead, leaving a passage way for the obsequial party. After that they recoupled the train and resumed their trip.

* * *

RAILFANETTE. *Blow That Whistle!* by Harry McClintock in our November '51 issue prompted a letter from Miss Esther C. Smith, supervisor of elementary vocal music Public Schools, Box 43, Charles City, Iowa, who writes:

"I sanction everything your author says about the value of recording some melodious old steam whistles before they go to the scrap-iron graveyard. As a young girl in grade school I used to know every locomotive in our vicinity as far as I could hear her chime whistles.

"Besides being chronically infected with the railroad bug, I had that peculiar gift known in musical circles as absolute pitch memory. I could instantly identify from its pitch every whistle on the line, no matter how similar it might seem to other whistles.

"There never was a prettier chord on a symphony orchestra than the 4-note combination that engine No. 1673 used to blow as she steamed into the yards with her daily way freight. In that flat country, with winter temperature sometimes 25 below zero, sounds carried for miles. I used to count the number of times an engine's grade-crossing signal sounded before a train pulled in and I would arrive at the proper computation as to just how far away the engine had been when I first heard her. The farthest distance was, I think, nine miles.

"Our branch of the Rock Island is now all-Diesel; so is, practically, the Milwaukee's line through here. But the Illinois Central engines still have some beautiful, low-pitched, chime whistles; I like to hear them highballing through at midnight. The bray of a Diesel sounds like a mule with a head cold.

"Back in 1933, when I was an even more impecunious school teacher than I am now, our district once ran out of money and couldn't pay salaries for weeks. Things were tough, but in April the Chicago & North Western paid its taxes to the county, so the worried schoolmarms got every cent due. That's one reason why I patronize the railroads rather than buses or airlines.

"Don't let the old whistles die away without being recorded for posterity. My school youngsters still like to sing *Casey Jones* and *I've Been Workin' on the Railroad*. I think they'd also like recordings of train and engine whistles. And keep those clever Fiddletown & Copperopolis cartoons coming, too."

We'd have you believe that all our Fiddletown & Copperopolis mail comes to us addressed like this

NOT SO. Harriet Gross, in the October instalment of *'Land Grant Legend,'* page 75, stated: "When Fort Benton begrudged him a right-of-way Hill curved his tracks in a mile-wide arc around it," and Harry L. Britzius of 6135 Southwest Kelly Avenue, Portland 1, Ore., writes "The *present* line is located that way, but the original line was further off. The arc around Fort Benton had nothing to do with the right-of-way but was built because the town sits down on a plain by the Missouri River, while the railroad follows the surrounding hills, about two-thirds of the way up along their sides. Running the tracks through that town would necessitate quite a grade, and tracks might be in danger of slipping into the river. I worked for the Great Northern for 22 years on the same division that Fort Benton is located on.

"I put in a summer with a train crew handling ditchers on that stretch of track but never heard an explanation of why the track had been changed, except that it was put nearer to Fort Benton and lessened the grade. Gross also says, on page 79: 'Eight years later, on to San Francisco.' If the Great Northern runs into San Francisco, I am unaware of it. I think the GN owns right-of-way clear into that city but was not permitted to build on it because a judge granted the Southern Pacific a permanent injunction."

Tom Mohr of 2250 West Giddings Street, Chicago 28, corrects: "GM&O Diesel pictured at right on top of page 111 in November's locomotive roster is not a freight engine but a two-unit passenger job."

Joe Rhoades, court reporter at the Little Rock, Ark., Courthouse, has the floor: "I enjoyed Linwood Moody's *Hereabouts & Elsewhere Railroads* (October '51), but his first reference to the Ashley, Drew & Northern down in Arkansas does not belong in that article, because few roads are so aptly named to denote their location and route. The AD&N originates at Grossett, in Ashley County, and runs due north to Monticello

in Drew County. This road, together with five others, serves the industrial center of Grossett. Grossett is a most unusual railroad town—although served by five railroads, it has no depot."

* * *

TWELVE-YEAR-OLD Linda Mortensen of Delta, Utah, was riding home with her family when their automobile upset, seriously injuring her mother and brother, besides shaking up her father and two sisters. Linda ran a half mile to the Union Pacific tracks, flagged a livestock train and asked the crew for help. Trainmen gave first aid and sent up distress flares, which brought motorists who took the injured to a hospital.

* * *

MODEL A FORD, driven by Orin Andrews of San Francisco, ran into a 70-car Southern Pacific freight train at a San Jose, Calif., grade crossing but sustained only slight damage to the bumper, fender and radiator, while the train was crippled so badly the SP had to send five freight cars to the shops for repair.

* * *

JOY fills the hearts of New Haven Road brasshats, for their company has received a refund of $7,225,958 from the Federal Government on income and excess-profits taxes, including interest, for the years 1939 through 1947.

* * *

BILL KNAPKE, retired Espee man, of Box 464, Bellflower, Calif., comes back at B. A. Thomas for the description of him in *Nuts and Bolts* (November, '51): "The immaculate Knapke, in his white shoes, light trousers, white shirt, and Panama hat, was not concerned about his work. He lived in Calexico and his two 'hosses' did the chores."

Knapke replies: "That shirt was white from salt induced by perspiration; the shoes were white from desert silt kicked up while following a coupla brakemen

around; and the 'Panama' hat looked like it hadn't cost moren' a buck to start with.

"Never mind, Brother Thomas, I know you were just trying to get a rise outa the ol' man. Ya know, I've had many a local conductor say to me: 'How is it you've

Ties steaming with creosote leave plant at Port Reading, hauled by Switcher No. 1. Engineer Albert Docs finds it a hot haul

Clifford E. Yeich, Reading Railway

Dominoed. Sacramento Northern locomotive No. 650 was dragging a trainload of sheet steel over trestle near Pittsburg, Calif. when 4000 feet of the wooden structure collapsed, injuring four crew members
Oakland Tribune

always got a good crew? Any local you have, you always get good brakemen.' Well, I'd say: 'I don't butt into their business. I figure that 9 outa 10 of 'em are a damn sight better rails 'n I'll ever be. So I try to have my work all done and be ready to leave when they're ready. Nothing'll discourage the brakemen and engine crew like a skipper dragging his feet and holding up the procession after they've hustled to get the work done.'

"B. A., d'ya remember any time you ever had to wait one minute on me? Not even the day Mac beat the tar outa that big ranch foreman in the freight house at Heber, Calif. Mac asked the guy if he'd let him have the hand truck, because we were in a hurry while the ranch foreman had all day. The foreman gave up the truck, but followed Mac around, calling him names and cursing him.

"Mac stood it as long as he could, not wanting to fight on duty. Finally I said: 'You don't have to take any more of that, Mac. If you don't climb in, I'll have to. He outweighs me by 60 pounds and could beat hell outa me, but no man braking for me has to put up with such abuse.'

'So Mac told the guy to shut up or he'd punch him. It was a clean fight. Mac outclassed him by a city mile. He would hit the guy and drive him against the wall and as the fellow rebounded Mac would hurl him back again. At length the brakeman asked, 'Satisfied?' The ranch foreman couldn't even answer.

"We loaded what freight was on the platform, coupled up, and left town. The station agent in his office not more than 20 feet away knew nothing of the fight until we'd gone. The foreman blew town. I understand he didn't return to the ranch, even for his clothes and money. Yeh, B. A., I'll bet that you, like myself, would like to live those days over, even if your skipper was so damn immaculate."

* * *

ENGINE BELLS. It's some 5000 miles from the nearest Louisville & Nashville tracks to Freetown, Sierra Leone, in West Africa, but a 350-pound brass bell from an L&N scrapped locomotive is on its way there to serve a Baptist mission. Similarly, a Long Island engine bell was sent to a Franciscan mission in Nicaragua. The practice of donating bells from junked locomotives to churches and missions has been followed for many years by railroads all over North America.

DINNER on a tray is a big departure from the ritual of dining-car service as established more than a century ago, comments Dorothy Robertson in the *Richmond (Va.) Times Dispatch,* noting that the Chesapeake & Ohio recently entertained a group of traveling school teachers in the diner of a train by serving a meal *a la tray.*

"It is being introduced in an effort to devise a system that will permit continuation of the popular luxury of eating in the diner," she adds. "The nation's dining-car service was operated in 1950 at the staggering loss of $26,830,000. The teachers didn't even have to write out their order. They looked at the menu, which included five complete meals, and put a check after the one they wanted."

* * *

LAST RUN. "While reading a chapter on 'The Woodstock's Last Run' in Freeman Hubbard's book *Railroad Avenue,"* writes Deweese W. DeWitt, 202 Albany Avenue, Kingston, N. Y., "I noticed this comment on the *H. H. Paine* which pulled the final train on the 14-mile Vermont line in 1933: 'The engine would be scrapped or left to rust her heart out in the weeds, Engineer Paine's name still painted on her, or maybe sold to some flour mill in New Hampshire.'

"You may like to know the fate of the *H. H. Paine,* which Hubbard tells us was one of America's last engines to carry a hogger's name painted on her cab. In 1933 James G. Ashley bought the West River Valley Railroad, between Brattleboro and South Londonderry, Vt., and the steam engine *H. H. Paine,* and a gasoline-powered unit with a coach trailer from the Hoosac Tunnel & Wilmington. The *H. H. Paine* proved unsuitable to the curving track, made but one trip on the WRV, rusted 'her heart out in the weeds,' and finally was cut up for scrap metal."

Engines doomed to the blowtorch have a sentimental appeal. "If only they could talk," we read in *Republic Reports,* a steel corporation house organ, "what a story these old locomotives would tell about their travels up and down and across the country while serving this nation! In peacetime and war, in good times and depression, these locomotives have stood as a symbol of speed, determination and progress—all qualities which have helped to make this country great."

* * *

AN OLD LAW in Omaha, never repealed but no longer enforced, requires train conductors to wire ahead if any passengers show signs of head-cold sniffles or other contagious diseases, so such persons can be prevented from leaving the train while in Omaha city limits.

* * *

TREASURED souvenir of A. E. Strand's 43 years in Northern Pacific engine service is train order No. 42, issued to him April 7, 1903, for a special train carrying President Teddy Roosevelt on a Western tour. Strand, now retired with a perfect safety record, handled Engine 234 on that run. His flimsy covered running orders to leave Forsyth, Mont., at 2:27 a.m., April 8th and arrive Billings at 5.25 a.m., with rights over all other trains.

"In those days, as at present," says *The Tell Tale,* GN magazine, "every effort was made by the railroad to conduct the Presidential party safely over its line. Engine 236 ran light ahead of the special as pilot with Jim Eckles at the throttle. Strand says the line between Forsyth and Billings was well protected that night. Men were stationed at strategic points, with lighted lanterns at switchstands, while others were hidden on high bluffs east of Billings where danger might be lurking."

Strand recalls, "It was an inspiring sight to see the white lights blinking their advance signals as the train approached."

Grand Trunk Western's profitless 18-mile branch freight line bows out. Last train, an extra pulled by Engine 5038, performed the obsequies between Cass City and Bad Axe

W. J. Miller

ANOTHER chapter in Michigan railroad history ended with the run of the last train from Cass City and Bad Axe, an 18-mile branch freight line of the Grand Trunk Western which is now abandoned. "Coincidentally," writes W. J. Miller of 15219 Regina Avenue, Allen Park, Mich., "that train was pulled by engine No. 5038, the last two numerals signifying the line's years of operation. The past few years had been profitless.

"Trains 49 and 52 still run between Pontiac and Caseville, three round trips a week. Engine 5038, a J class (4-6-2), is still used on GTW locals and mixed trains.

"The last trip over the GTW branch line was made by an extra. On board were Jack Muntz, retired railroader who had fired the first train over the Detroit & Huron; Engineer George Wix, Fireman George Walasky, Conductor George Morgan, Brakemen George Boyd and Al Hasse, and me. Why there were four Georges I don't know."

* * *

OLDTIME telegraphers may remember the *Op Fist* contests we conducted in 1917 and 1930 to determine the best penmanship used in writing train orders.

A letter just in from Benjamin Tidrick of 8131 Lake Street, Omaha, says: "It would be interesting to know if the younger men and girls in telegraph service are carrying on the old traditional styles of penmanship in these modern days or if it has become a lost art." Tidrick won our 1917 contest.

The script he refers to is picturesque, flowing, with even lines, and most words connected by graceful curves.

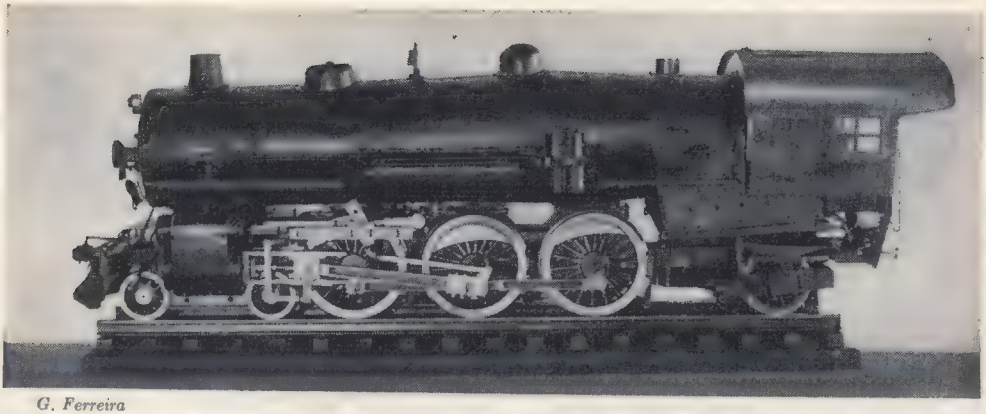
* * *

RAILWAY EXPRESS is being sued for $1,000,000 by Montgomery Ward because unionized express drivers would not go through a picket line to make pickups and deliveries at a Ward warehouse in New York City. Units of the mail-order and department-store company were picketed in a labor dispute.

K. N. Merritt, REA vice-president, claims that 40,000 expressmen have lost their jobs since 1946 as a direct result of Government-subsidized parcel post, which, he says, has cost his company a loss of 65 percent in its business. He points out that nationalization usually

They climbed the Matterhorn. Sinking its teeth into Swiss scenery, the Gornergrat Cog Railway gives its patrons a breath-taking view of the mountain. Or maybe the respiratory deficiency is due to the elevation—10,289 feet above sea level at catenary end. Electric run originates at Zermatt

Authenticated News



G. Ferreira

New York Central's K-11 was prototype for this ¾-inch scale live steamer built by G. Ferreira of 635 East 138th Street, Bronx, N.Y. Fully equalized spring rigging makes for smooth running on 3½-inch gage track

starts with a country's transportation system, then other key industries, and finally the professions.

Says Merritt: "The intrusion of any Government agency into the field of industry is a threat to the preservation of free enterprise that half the world is now grimly fighting for."

* * *

PERSONALITIES. Dr. John Milligan, former chief surgeon of the Pittsburgh & Lake Erie and one of the first doctors to reach the scene of the disastrous Johnstown, Pa., flood in 1889, has just celebrated his 100th birthday, and feels quite chipper.

Another oldtimer, George S. Scott, who has retired as manager of the SP's telegraph office in Los Angeles, railroaded 65 years, which he thinks set a record for long service.

Mrs. Eleanor Newman, ticket seller in Grand Central Terminal, New York, trapped two thieves the other day. A few minutes after the theft of two New York-Los Angeles railroad tickets from a New York apartment had been reported to her by phone, two men presented such tickets at her window for refund. Being suspicious, the young woman delayed them and asked a colleague to tip off Terminal police. The men were arrested, and they confessed.

Tom Maizga, New York Central brakeman, has a good memory. Three years ago he saw a picture of a marijuana leaf in his hometown paper, the *Utica, N. Y., Observer-Dispatch,* clipped it out, put it in his wallet, and apparently forgot about it. Then one day near Frankfort, N. Y., he spied a big patch of strange-looking weeds along the track, dug out the clipping, frayed and yellow, then notified police. He had found a wild growth of the dope. State employes quickly destroyed it.

Walter Biddle Saul, a Philadelphia lawyer, is now in the railroad business, having bought the 11-mile West Virginia Northern, a coal feeder line, for $500,000, besides acquiring 23,000 acres of coal land, reports Luther P. Cummings Jr. of 129 Nevin Street, Lancaster, Pa. The road runs between Kingwood and Tunnelton, W. Va., connecting with the B&O.

B. M. Chapman, Canadian National night express clerk at Hamilton, Quebec, was startled when a man entered his office late at night, poked a gun into his ribs, and demanded the money. Keeping his nerve, Chapman showed the stranger an empty cash box in his safe and diverted attention from the money cache. Just then two customers strolled in. The gunman fled, was picked up by police, and pleaded guilty to a charge of attempted armed robbery.

Reader's Choice Coupon

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*Elip—spells PILE backwards!

A TRAGEDY of enforced retirement, the sudden feeling of being useless, is caused by the failure of many otherwise capable men to prepare for the rocking chair in advance by acquiring interests outside of their regular jobs.

Glenn B. Henderson retired recently as vice-president in charge of Chicago & Eastern Illinois personnel after more than 48 years of service, and he said that, like his father, a C&EI conductor who died in 1935, he'd spent his whole working life in railroading and knew nothing of the world "except the railroad business."

"Now that retirement has finally come," he added, "I'm at a loss what to do. I have been too busy to acquire a hobby and do not care for participation sports like golf or fishing, so I suppose I'll just hibernate until I get interested in civic affairs or charity work."

* * *

BRITISH RAILWAYS, London Midland Region, has given the name *Amethyst* to a *Jubilee* class locomotive, No. 45700, to commemorate the daring exploit of the frigate in 1946 which ran a gauntlet of heavy, continuous bombardment from shore for more than seven hours as she sailed down the fast-flowing Yangtse.

Also in England: Police are cracking down on the railway Romeos of Birmingham who take their girls riding on slow, local, night trains to pet in the compartments. Police are not concerned with the necking but with the Romeos who throw away light bulbs, the loss approximating 2000 bulbs a months.

* * *

NARROW ESCAPE. Cristine Ragen, 18 months old, was toddling along the Northern Pacific tracks with her brother, Pat, a year older, near their home at Townsend, Mont., when she tripped and fell between the rails in front of an oncoming 50-car freight train. Pat

ran screaming to his mother. Six boxcars rolled over the girl before the frantic hogger could stop his train, leap from the cab, run back, pull the unhurt child from beneath a car, and explain to the almost-hysterical mother: "She's all right, lady, she's all right!"

On The Spot has reported half a dozen similar cases in the past twenty years and they're always heartwarming.

* * *

WATER will cover the old mainline tracks of the Spokane, Portland & Seattle for 30 miles east of the new McNary Dam on the Columbia River as soon as the dam is completed, forming an artificial lake, we learn from Walter Thayer, Box 1588, Chelan, Wash. Trains are now running on 35 miles of relocated track between King and Finley, Wash.

For 25 miles a riprapped wall supporting the new grade is right alongside the old track. When the permanent water level is reached, waves will splash against the wall 11 feet below the subgrade the new track has been built on, but the construction is so sturdy that it is unlikely the water can cause any erosion. The relocation job included erecting a new freight and passenger station, two duplex dwellings for the station agent and the telegraph operator and their families, plus houses for the section foreman and the signal maintainer and a bunkhouse for the gandy dancers at Plymouth and Yellepit, Wash.

* * *

MOOSEHEART, the Illinois community maintained by the Moose for dependent children of deceased members, has been given a $5000 model electric railroad that occupies more than 1500 square feet. This is being used by the electrical class of Mooseheart's vocational training school in the study of electronics and railroads. The layout was presented by W. W. Kimball, a Chicago piano manufacturer.

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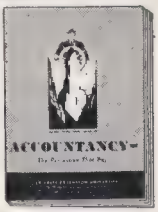

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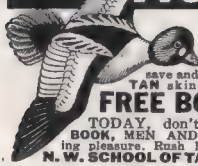

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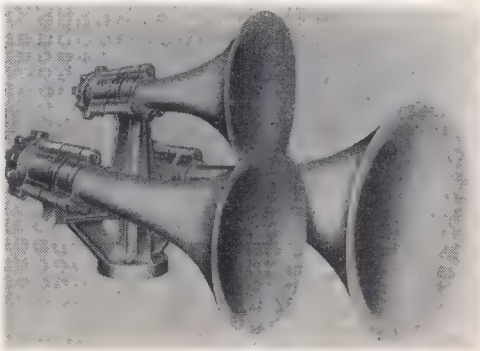
RAUCOUS blasts of Diesel locomotive horns have given way, here and there, to airhorn notes that resemble the nostalgic scream of the steam engine whistle. An even newer device, manufactured by both Westinghouse and Leslie, is the multi-bell horn that sounds like organ music. It is said to be as effective as the old signal in volume range and can be heard plainly at three miles—sometimes eight miles, with good atmospheric conditions. Its air consumption is claimed to be only a fraction of that required for horns and whistles of other types.



Leslie

No growl here. Westinghouse and Leslie, experimenting with a multi-bell horn for Diesels, claim some listeners mistake melodious sound for chapel chimes

Invented in Sweden by Gustav Broden, it is used on some European roads and has been tried out experimentally in the United States. G. L. Cotter of Westinghouse says some listeners mistook its melodious sound for chimes from a nearby chapel. Known in America as the *Leslie Super-Tyfon,* it has a patented chamber which uses the operating pressure to move the diaphragm in both directions. Also incorporated is the new airhorn which requires no adjustment and, it is claimed, provides more diaphragm life than any other airhorn or whistle. Like the Canadian *Airchime* of Bob Swanson, already installed on Diesels of some American and Canadian roads, the *Leslie* preserves the pleasing chord of a steam locomotive whistle.

QUAINT provisions were contained in acts of the Tennessee Legislature in 1845 and 1846 authorizing the incorporation of the Nashville & Chattanooga Railroad (now NC&StL). For example:

"This company shall have full power and authority to purchase and own such number of slaves as may be necessary for the construction of the said road and for keeping the same in repair."

"The president, directors, clerks, agents, officers and servants of said company shall be exempt from military duty except in case of invasion or insurrection, and shall also be exempt from serving on juries and working on public roads."

Another item permitted the company to confiscate any vehicles found trespassing on the right-of-way.

* * *

HUMANE RAILROADER. As Engineer B. W. Sheely of the Nickel Plate Road came through Elwood, Ind., he tossed off a note for the station telegraph operator which read: "Call operator at Tipton and try to contact farm two miles east of Tipton on south side of track. Cow caught in fork of tree."

Tipton was notified, the operator there contacted the farm, and the cow was rescued.

* * *

TWILIGHT is casting heavy shadows over the 8-mile Manchester & Oneida, running these past 50 years between the two Iowa towns it's named for, connecting with the Milwaukee Road and the Chicago Great Western. This once-prosperous short line is petitioning for abandonment, reports George Dutton of 2224 Country Club Parkway, Cedar Rapids, Iowa.

"It's like tearing a leaf out of the old town's book," commented Charles E. Chapel when he heard the news. Chapel, a one-time contributor to *Railroad Maga-*

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The Excelsior Institute, a medical institution devoted exclusively to the treatment of diseases of older men, has a revealing FREE Book. It tells how many hundreds of men yearly are finding soothing and comforting relief from their ailments and a new outlook on life. This FREE Book gives factual knowledge that could prove of utmost importance in the later years of your life. No Obligation. Address

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Car owners who are wasting money and not getting proper gas mileage due to over-rich mixtures will be pleased to learn how to save gasoline by VACU-MATING over-rich mixtures. VACU-MATIC fits all cars, trucks and tractors. It is *automatic* and operates on the supercharge principle. Easily installed in a few minutes.

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zine, now listed in *Who's Who* as the author of 18 books and a member of the California State Legislature, used to live in Manchester. Visiting Manchester for the first time in 14 years, he made a round trip with Engineer Frank O'Leary and Fireman Pete Franks in the cab of the M&O's *Six Spot.*

"I'm going to ask M&O officials to grant me a lifetime pass on their road," he said whimsically, "the day before it is abandoned."

* * *

INFORMATION WANTED, by H. A. Wykert of 606 West Myrtle Street, San Antonio 1, Tex., regarding a wreck one morning about 1909 at Hedrick, Ia. "As near as I can remember," he writes, "a Milwaukee Road accommodation train ran into an Iowa Central (now M&StL) freight at a crossover beside the depot, killing the passenger engineer. That evening, after the wreck had been pretty well cleared up, Dad took me over to see the engine.

Editor's note: One way to track down such information is through the *New York Times News Index,* available in many libraries throughout the country. That *Index* may be used as a guide in consulting old files of the *Times* and other papers. You'll find back newspaper files in large public or university libraries and newspaper offices.

* * *

CARL R. GRAY, just before he became president of the Spokane, Portland & Seattle and the Oregon Electric, dropped into the office of Edward H. DeGroot Jr. at 924 Colorado Building, Washington, D. C., and said he had a story which DeGroot "as a steam man" ought to enjoy. One day the dispatcher of an electric line reported to his boss, Gray, "We've got two fast electric trains headed toward each other along the river."

Gray was irritated at the man's calmness. "Have you notified the hospital?" he demanded tensely. "Have you called doctors, nurses, ambulances? Have you ordered out the wreck crew?"

The dispatcher chuckled. "They won't hit."

"Won't hit?" echoed the boss. "Why, man, train crews can't see each other down there! We'll have a horrible mess."

"No," said the DS. "They won't hit. I turned off the juice."

* * *

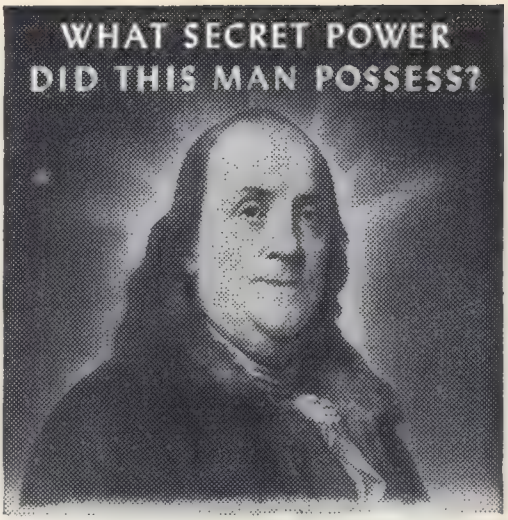
SEPTEMBER '51 topped all records for the number of new locomotives ordered by American railroads: 444 Diesels, 15 steam. Altogether, 13,000 new units of locomotive power have been put into service in this country since World War II ended, and during the same period nearly 400,000 new freight cars.

* * *

LAST STOP is the Reader's Choice Coupon (page 132) which guides your editorial crew in selecting material for future issues of *Railroad Magazine*. Some readers use the coupon. Others prefer not to clip the magazine; they send home-made coupons, postcards or letters. Regardless of how votes are given, all count the same. Results of balloting on the December issue show as follows:

1. Commuting on the Central, *Krampf*
2. Ohio Mixed Train, *Cook*
3. Illinois Terminal Railroad, *Maguire*
4. Locomotive Power *(Lantern)*
5. On the Spot
6. Locomotives of the DM&IR
7. Shop Photographer, *Joslyn*
8. Land Grant Legend, *Gross*
9. Boomers Eastbound, *Roach*
10. Journey's End, *Canton*

Best photos: pages 30 and 56



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Know the mysterious world within you! Attune yourself to the wisdom of the ages! Grasp the inner power of your mind! Learn the secrets of a full and peaceful life!

Benjamin Franklin—like many other learned and great men and women—was a Rosicrucian. The Rosicrucians (NOT a religious organization) first came to America in 1694. Today, headquarters of the Rosicrucians send over seven million pieces of mail annually to all parts of the world. Write for YOUR FREE COPY of "The Mastery of Life"—TODAY. No obligation. No salesmen. A non-profit organization. Address: Scribe D.R.X.

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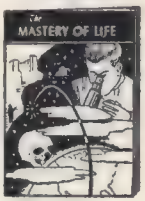

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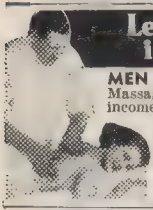
AMAZING INVENTION. Banishes old-style housecleaning mess and muss. No rags—no sticky "dough"—no red, swollen hands. No more dangerous stepladders. Literally erases dirt like magic from Wallpaper, Painted Walls, Ceilings, Window Shades. *Take orders from friends! Earn money!* Act now!

SAMPLES FOR TRIAL Sample offer sent immediately to all who send name at once. A penny postal will do. SEND NO MONEY—*just your name.* **KRISTEE CO.,** Dept. 1441, AKRON 8, OHIO



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CLUTHE SONS, Dept. 15, Bloomfield, New Jersey.

Part of military railroad training which no one can question is the B&O's program at Ft. Meade, Md. Many trainees are helping run the roads operated in Korea

Railroad Camera Club

SOUND OFF

DEAR SIRS:

Recently I traveled across Pennsylvania and found that the simple Brownie camera is looked upon by railroad men as more deadly than the A-bomb. They are not very happy when camera-toting individuals intrude upon their hallowed cinders. Usually they just sound off with some excuse about why no pictures can be taken. More often you are informed that you will have to trudge 500 to 1000 miles

back to obtain both written and verbal permission. But now they scream at you, "Army regulations."

At Enola Yards I found that I would have to return to Harrisburg to obtain permission to photograph the sand pits and coal chutes that dot the area. At Harrisburg, a phone call to Philadelphia brought back the reply, "Army regulations."

Can you just imagine an enemy agent strolling into Enola Yards, cameras, filters, light meters and flash bulbs dangling on all sides? I would say it sounds silly. As far as information about rolling stock is concerned, this is readily available in the *Locomotive Cyclopedia* and the *Car Builders Cyclopedia.*

If yard facilities are so secret why aren't they guarded by Army men and high barbed-wire fences? If there are secret facilities or equipment in our railroad yards why not have the *qualified* photographers accompanied by recognized railroad men who will restrain the photographing of such facilities.

At North Bessemer I encountered the same fantastic *army* situation. The yard facilities of the Bessemer & Lake Erie are found here. The old hogger who informed me that I wasn't allowed to take any picture was pleasant enough, but he was strangely fascinated by the word *army.* On a nearby track stood a wheezing, panting old 4-6-2. It had the characteristics I wanted for an illustration in the planning stage, so I asked permission to photograph this ancient teakettle. Even after identifying myself with numerous cards, all I heard was "Army."

If there is a yard or facility of strategic value, don't you think that pictures of that area are already in enemy files? After all, those yards have been in existence for many, many years.

No, it's not the railroad man's concern for the questionable strategic value of a water tank or coal chute as much as it is indifference to the public—the public who will take the time and trouble to travel 500 miles just to slog around a sooty railroad

SALES

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Yes, realize profits beyond your fondest dreams! TOPPS is America's outstanding line of uniforms and work clothes. You show a huge selection of styles and fabrics in ALL sizes. You show long wearing fabrics, excellent workmanship, perfect fit—all combined with LOW PRICES that makes order-taking easy and profits BIG! Earn money from the very first day . . . and build a secure future on steady repeat business!

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Don't wait! Rush your name and address today for the big, beautiful, full-colored TOPPS LINE for 1952. It's a sure-fire winner. See all the handsome styles, actual sample fabrics, everything that brings profits fast. It's all free! Mail coupon now.

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Send me the big, FREE TOPPS LINE for 1952 and complete money-making details.

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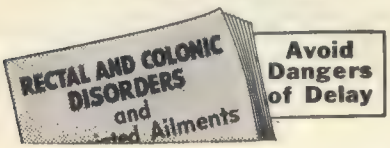

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yard. He is the best public relations department the railroad can ever have, also the most inexpensive. He goes to bat for the railroad whenever shipping by truck or travel by bus comes up in conversation. He reads railroad books and journals so he can be well informed on the subject, so well in fact, that he is looked upon in his local neighborhood as somewhat of an authority. This is the individual the railroad man should thank for his interest and good will, not push around with indifference and excuses.

This army regulations stuff may be real, but how realistic? Not so long ago, an expensive installation was dedicated at

Top military secret—it's 4 feet 8½ inches between railheads. The Russians don't know this—we sold them on a 5-foot gage before *ze rewolooshun*

Baltimore & Ohio photos

RAILROAD CAMERA CLUB is open to all who collect railroad or street-car pictures or other railroadiana such as timetables, passes, train orders, trolley transfers, magazines, books, etc. There are no fees, no dues.

Membership card and pin are given free to anyone sending us the latest Reader's Choice Coupon and self-addressed stamped envelope. If you don't want to clip page 132 make your own coupon. Address *Railroad Magazine*, 205 East 42nd Street, New York 17.

Enola Yards. A number of engineering and sanitary magazines wished to publish information and photos of this installation common to many large cities. But no can do. No photos, no information. Why? Confidentially, it was a sewage disposal plant.

Public relations? Most of the railroads don't know the meaning of the word. Now with army red tape to back up their attitude they are serenely confident in their relentless war against the railroad booster. With the present attitude, these boosters will all soon be placed on the list with the Dodo Bird and the Carrier Pigeon.

Sincerely yours,
Manville B. Wakefield.

* * *

ITEMS sent to the *Switch List* and *Model Trading Post* are published free, in good faith, but without guarantee. Write plainly and keep 'em short. Print name and complete address.

Because of time needed to edit, print and distribute this magazine, all material should reach the Editor nine weeks before publication date. Redball handling is given to items if accompanied by latest Reader's Choice Coupon (clipped from page 132 or home-made).

Use these abbreviations: *photo*, photograph; *cond.*, condition; *ea.*, each; *elec.*, electric; *env.*, envelope; *eqpmt.*, equipment; *esp.*, especially; *info.*, information; *n.g.*, narrow-gage; *negs.*, negatives; *p.c.*, postcard; *pref.*, preferably; *tr.*, train.

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YOU can WIN This big Silver Trophy

That's what the boys shouted at me ONLY A FEW WEEKS AGO . . . But look at me NOW, PAL . . . A Trophy-Winning JOWETT HE-MAN Like YOU can be SOON!

Your Name on it.

YES! John Sill like millions, mailed me 10c and a coupon like the one below YOU MAIL NOW!

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Let me Prove in 10 THRILLING MINUTES A DAY I can make YOU An ALL-AMERICAN ALL-AROUND HE-MAN

FAST—OR IT WON'T COST YOU A CENT

SAYS GEORGE F. JOWETT—WORLD'S GREATEST BUILDER OF HE-MEN

YES! YOUR SUCCESS STORY can soon be like Sill's!

How weakling wins trophy as MAGNIFICENT HE-MAN! Few weeks ago everyone picked on John . . . No guts to fight for his rights. TODAY everyone admires John's movie-star build—his mighty ARMS, broad BACK, heroic CHEST. His ATHLETIC ability. His ENERGY at work. His POPULARITY. How GIRLS go for him! NO! I don't care if you're 14 or 40; if you're SKINNY or flabby. Give me 10 EXCITING MINUTES to make you over in your home by the method I turned myself from a wreck into A WORLD CHAMPION.

YES! Add INCH on INCH of MIGHTY MUSCLE to your ARMS. Deepen your CHEST. Broaden your SHOULDERS. Gain SIZE, SPEED POWER! Become an All-American HE-MAN! A WINNER in everything you tackle—or you won't pay one cent!

DEVELOP YOUR 320 MUSCLES Gain POUNDS, INCHES fast! Friend, I travelled the world. Made a LIFETIME study of EVERY way known to build your body. Then I devised the BEST, "5-WAY PROGRESSIVE POWER", the ONLY method that builds you 5 WAYS fast Save YEARS, DOLLARS, like MANY THOUSANDS like you did. Mail Coupon NOW!

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DEPT. PP-22

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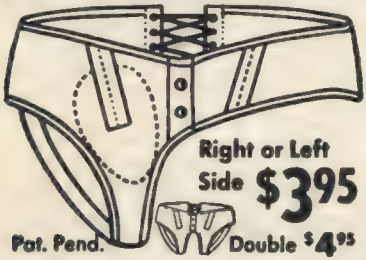

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(R) indicates desire to buy, swap or sell back issues of *Railroad Magazine* or its predecessors, *Railroad Man's Magazine* or *Railroad Stories.* (Specify condition of each copy). (*) indicates juicefan appeal.

SWITCH LIST

(R) ROGER D. ADEN, Golden, Ill., wants Jan. to Dec. '50 *Railroad Magazine,* 1st class cond., unclipped; also steam photos any rd. Will pay cash for tr. ords., any rd.

(*) RICHARD J. ANDERSON, 7431 W. Isham Ave., Chicago 31, Ill., will sell size 116 steam, elec, negs., var. prices; designate ones wanted.

(*) J. P. ASCHER, 1418 Laurel Ave., Knoxville, Tenn., will sell on approval large surplus of good quality eng., trolley photos, size 116, 5¢ ea. or 25 for $1. Also has size 116 negs. for sale. State wants.

J. W. BRAUNER, 23 Howard Ave., Williamsville 25, N. Y., wants negs. or photos B&A 4-8-2, 2-8-2, pref. size 116, 616. Has few negs. for trade, photos all N. Y., Pa. short lines; trades caboose negs., size 616.

(*) W. BROSCHART, 65-17 Fresh Pond, Ridgewood, N. Y., wants photos, maps of local trolley lines in upper N. Y. State cities, also info. on routes, abdn. dates, buses replacing them; anything on N. Y. State rys.; Alexandria Bay trolleys; Ogdensburg streetcars; will buy or trade. Has collec. 7000 elec. lines negs., '20 to '30, size 116, N. J., N. Y., Pa., N.E. lines; 5¢ ea. or will trade for similar trolley, bus or steamship; comnl. list for 3¢ stamp.

(R) A. J. BURKETT, 25 Concord St., Charlestown, Mass., will buy *Railroad Magazine* Sept. '48 containing article Fiddletown & Copperopolis No 1.

(R) R. H. CARLSON, Box 56, Combes, Tex., will sell *Railroad Magazines* 20¢ ea., Aug. to Dec. '46; all '47 to '49; '50 exc. July; Jan., Mar., Apr. '51; *Trains* Aug. '41; Sept. to Dec. '46; all '47 to '50; Jan. to Apr. '51.

(*) EARL CLARK, 2108 Howell St., Covington, Ky., has new list of trolley photos, size 116, for sale 5¢ ea. or trade. Also negs. (no list), Zeiss 116 camera $20, Kodak $15. Buys 8 mm. movies.

H. CLAUSEN, 131 57th St., Brooklyn 20, N. Y., wants tts. or emp. tts. NYO&W Ry. prior '38. Specify date, price.

(*) HENRY COUPERUS, 3202 High St., Denver 5, Colo., will buy streetcar photos, trolley guides, trsfs., city maps showing stretcar lines of Denver Tramway Corp. prior '32.

(R) PEYTON L. DIXON, 209 Yeardley Ave., Lynchburg, Va., wants Sept. '44 *Railroad Magazine;* size 616 or larger negs. or pictures of oldtimers prior 1899; negs. of any odd type loco esp. 2-6-6-6, 4-4-4, 4-4-4-4, 2-4-2, any V&T, GS&G, N&W, esp. 950, 788, 778, 1350, 1333, anv others. Will sell size 120, 116, 616 negs., pictures N&W, C&O, SP, Soo, many others; 5x7 oldtimers, 25¢ ea., prior 1900; also has large collec. tr. ords. for trade. Write first stating your wants, offers, price.

A. DOUGLAS, 986 Shaw St., Toronto, Ont., Canada, wants scale plans *Birney* streetcars, esp. with interior details.

PAUL B. DUNN, 912 Arch St., Zanesville, O., will buy size 616, p. c. negs. NYC H-62 class renumbered to 6300 series; W&LE engs., all classes, renumbered into NKP series; EBT n.g. engs., RGS and D&RGW n.g. engs., cabooses, coaches, cars; also RR recordings.

(*) RALPH FORTY, SKSN, Navy Supply, Bldg. 321, USMCAS El Toro, Santa Ana, Calif., will exch. photos juicelines in Japan, Norway, Denmark, Germany, Italy, Belgium for foreign photos size 120. Wants to hear from juicefans in Japan.

JAMES F. GARNER, Carlisle Military School, Bamberg, S. C., has old loco photos, drawings, emp. tts. Fla. East Coast Ry.

(R) J. F. HACK, 2944 Ridge, Lansing, Ill., will sell back issues *Railroad Magazine, Ry. Age,* other RR mags.

(R) FRED N. HARR, 1880 Page St. 5-3, San Francisco, Calif., will buy *Railroad Magazine,* not over 35¢ ea. July to Dec. '49; Jan., Feb., May, June '50.

(R) W. H. HARRIS, 45 West Elm St., Stockton 4, Calif., will sell *Railroad Magazines* '34 to date; *Trains* '43 to date. Write for list.

JAMES L. HAUGH, 1010 Jasmine Ct., Richmond 11, Calif., will sell size 116, 616 photos AT&SF, SP, WP, CP, CN. List for stamp. Will buy negs. N&W, RI.

(*) CHARLES V. HESS, 209 S. Cottage, Goshen 4, Ind., will sell photos, size 116, Ironton, Ohio trolley, other rare trolley photos, 5¢.

(*) DON HOLMGREN, 551 Mangels Ave., San Francisco 12, Calif., wants trolley photos city lines, esp. San Francisco, St. Louis, Denver, Phila.; make offer.

JOHN C. ILLMAN, 522 Masonic Ave., Albany 6, Calif., will trade emp. tts. Pac. Great Eastern, SP Coast Div. for those of eastern rds., esp. New England; pref. recent issues. Write first.

(R) DAVID K. JOHNSON, Box 115, Dover, N. H., wants *Railroad Magazine* May '32; Apr.., Nov. '33; Feb., Dec. '35; Apr., May, June '42 and '43. Also wants *Off. Guide* any issue from 1900 to '15. Will buy or trade photos CV, Rutland, B&M, MC, CP. Write first.

WILSON JONES, 293 Elsmere Pl., Palisade, N. J., will trade size 616 steam negs. only. Wants tr. shots, still or action, all rds.; needs N&W, WM, New Eng. lines, TH&B.

I. W. KING, 1715 Wright Ave., Greensboro, N. C., will sell over 1000 *Ry. Age, Ry. Engineering & Maintenance*, perf. cond.; 7 issues for $1 p. p.

RALPH LEY JR., 135 39th Ave., Lachine, Quebec, Canada, will trade photos, negs, trs.; also will sell or trade CNR, or CPR, American lines, foreign negs. or photos trs. Write for list; answers all mail.

ROBT. C. LINGWOOD, 2, Wyther Park Square, Armley, Leeds 12, England, will sell excell. size 116 photos British locos, trs., 20 for $1 or exch. for size 116 or 616 photos Amer. locos, any rd.

(R*) GORDON E. LLOYD, 5305 North Christiana Ave., Chicago 25, Ill., will sell *Railroad Man's Magazine* Nov., Dec. '31, both for $2.50; *Transit Journal* bound Vol. 76 for yr. '32, $5; *Elec. Traction* Sept. '29, $2; all perf. cond.

HENRY McKINNIE, 14 West Stockton Ave., Rm. 15, N. S., Pittsburgh 12, Pa., will buy, sell or trade obsolete or modern rail or other company stocks or bonds.

(R) GLEN MADER, 1515 S. Oakes, San Angelo, Tex., wants to buy or trade for photos, old catalogs of steam thresher outfits; has to trade or sell *Railroad Magazines*, photos, some catalogs, old *Ives, Lionel, AF* tr. catalogs, old book on RR steam operations. Request list.

(R) EDWARD MAHONEY, 500 Washington Ave., Santa Fe, N. M., wants Apr. '33 *Railroad Stories;* also compl. yrs. '32 and prior.

RALPH MARSON, 17844 Albion, Detroit 34, Mich., will buy ICC *Statistics of Rys. in U. S.*, any yr. Also wants NYC, GTW, CN, PRR tts., system or local, pub. or emp.

(R) FRANK MAURER, 2110 N. Orianna St., Philadelphia 22, Pa., will sell *Railroad Magazine* '43 to '51.

W. P. MILLER, 1447 Church St., Rahway, N. J., will accept any reasonable offer for *Model Railroaders*, 29 misc. copies, Jan. '41 to date; also 65 misc. *Trains;* no separate copies sold.

TOM MOHR, 2250 W. Giddings St., Chicago 25, Ill., wants photos Pere Marquette 725 to 729, all 4-6-2s; Chicago & Eastern Ill. 4-6-2, 1008, with streamline cover (used at one time on the *Dixie Flagler.*

(R) EDWARD A. MORAN, 3629 Oxford Ave., Riverdale, N. Y., has *Railroad Stories* '34 to '48; *Model Builder, Model RR, Trains, Modern RR, Model Craftsman;* English: *Model Ry. News, Model RR Constructor.*

H. T. MOULTON, 123 Wibird, Portsmouth, N. H., will sell unpunched tkts., Ports, Kit & York 5¢; Libby $1.50 ea.; 4 Meloon 75¢ ea.; Dover & Y, 5¢; 10, 50¢ ea.; Y, 6¢; 11, 50¢ ea.; 4, 7¢, 25¢ ea.; send no money until advised. Wants Temiscevata tr. photos.

JATINDRA NARAYAN, Nayabazar, Bhagalpur City, Bihar, India, collects data on loco performances, charts, diagrams showing loco assignment and compl. operating cycles.

DAVID H. W. PARSONS, 35 Windsor St., Sunnyridge, Germeston, Transvaal, S. Africa, is new address for S. African railfans.

(R) D. S. RICHTER, 1659 Kains Ave., San Bruno, Calif., will sell *Railroad Magazine* '50, '51, $2.50 yr.; *Trains* '40 to '51, compl., $50; tts., emp. tts., books; also good size 616 negs, AT&SF, SP, Western short lines, 25¢ ea. up; trade for Northwest, Southwest short lines. List for stamp.

(R) DONALD C. RINGWALD, 4 Leonard Pl., Albany 2, N. Y., will sell *Railroad Magazines* May, June '45, Jan. '46, Mar. '48; *Trains* Jan., Mar., Apr., Sept. '46, Mar. '48.

(R) W. ROBBINS, 1313 N. John St., Palestine, Tex., will sell or trade *Railroad Magazines, Trains,* tts., emp. tts.; exch. annual passes. List for 3¢ stamp.

ROBT. SCHASER, 2451 178th St., Lansing, Ill., wants rulebooks of any Amer. rd., pref. in good cond. Send lists.

JOSEPH A. SCHNEIDER, 2701 Valentine Ave., New York 58, N. Y., wants photos London underground, Paris subway.

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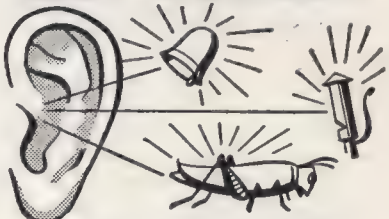

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P. G. SCOTT, 1421 1st Ave., S. W., Cedar Rapids, Iowa, wants excell. copy '36 to '40 *Loco Cycl.* State your offer; answers all mail.

DWIGHT A. SMITH JR., 89 Woburn St., Reading, Mass., is selling size 616, 3x4 ⅝ in. photos B&M, B&Al, B&C, CP, CV, D&H, GT, MeC, PTCo, Rutland power. Also has few negs. to sell or trade. New 3 pg. list for stamp.

(R) ARTHUR STENSVAD, 811 E. 3rd St., North Platte, Nebr., has *Railroad Stories* May '33, Apr. '36 to Aug. '37; *Railroad Mag.* Sept. '37 to date for sale or trade.

W. R. SWANSON, 5729 27th Ave., N. E. Seattle 5, Wash., will sell size 116 camera, Steinheil f4.5 lens Compur shutter 1 sec. to 1/250, T&B $30; *Baldwin Locos,* $1 ea.; *Model RR* '34 to '46; *Trains* '40 to '46; *HO Monthly.* Trades eng. photos, negs., size 116.

EARL E. SYMONDS, Sandy Lake, Manitoba, Canada, offers list 100 photos, var. sizes, 8¢ ea. CNR engs. Manitoba 28%, 50%, 53%, 55%. Also some CPR, CPR *Countess of Dufferin.* List good photos for self-addressed, stamped env.

ERICH THOMSEN, 518 E. Bellevue Ave., San Mateo, Calif., wants old *Loco Cyc, Car Builders Dictionary, Loco Builders* catalogs showing n.g. or light locos.

(*) FRED THOMSON, 2401 E. 10th St., Topeka, Kans., wants abdn. trolly trsfs.; will pay good price.

MICHAEL J. VAIUSO JR., 54 Arch St., Amsterdam, N. Y., has list of mags., books, booklets, tts., calendars, scale plans, emp. mags., photo collec., EMD builders pictures for sale. Collects negs. only.

(*) R. J. VAN BOVEN, 1212 Delaware Ave., New Castle, Pa., wants photos size 620 or 116 of Sheffield & Tionesta, Tionesta Valley RR; also Cleveland, Painesville & Eastern, Eastern Ohio Traction.

(*) WARREN W. VAN WIE, 327 St. James Ave., Springfield 9, Mass., will sell trolley, bus trsfs., 300 for $1.50 plus postage; nice assortment for a beginner.

(R) ARTHUR VIERECK, 808 N. Hidalgo, Alhambra, Calif., wants early *Railroad Man's Mag.* '06, '07, '13, '14, if possible; must be good cond. Send lists, prices.

ARTHUR A. VOELKER, 137 S. Pleasant Ave., Ridgewood, N. J., wants negs., photos Monon steam engs., sizes 116, 616, larger; esp. 4-6-4s, 2-8-2s.

(*) J. C. WADDELL, 3662 N. Twin Ave., San Gabriel, Calif., has old souvenir spikes from Pac. Elec. rails near San Gabriel; line discontinued recently; serviced commuters and passengers from Baldwin Park and Elmonte to Los Angeles many yrs., 50¢ ea. plus 10¢ postage.

JOHN WEIGHTMAN, Box 696, Sacramento, Calif., will sell one SP emp. tt. Mar. '44, $3.

OTTO A. WEISS, 32-52 34th St., Long Island City 6, N. Y., wants *Suggestion Plan Info.* on how to build RR New York City to Danbury, Conn.; also to Port Chester, N. Y. over old roadbed New York, Westchester & Boston.

MAX E. WILCOX, 429 West Ave., Elyria, O., wants photos Cleve. Southwestern. Has pictures to sell. List for stamp.

E. A. WILHELM, 108 Jerome St., Texarkana, Tex., retired railroader, paralyzed and confined to a wheel chair, collects emp. tts., swaps tr. ord.; desires corres.

C. W. WITBECK, Box 697, Brookhaven, Miss., will sell several hundred dupl. 1st class p. c. size negs. locos, cars, etc. RRs of Mexico, Central America, all gages; write for price list. Has 1200 emp. tts, '45 to '50 U. S., Canadian rds.; to highest bidder for lot, no list.

RUDOLPH W. WITTEMANN, 142 Henry St., Brooklyn 2, N. Y., will sell mags., books or will trade for back copies *Trains, Model Craftsman.* Send for lists; answers all mail. Wants *Loco Cycl.* '47.

WHAT IS ERA?

A non-profit, nation-wide association of those who are devoted to the History and Service of All Types of Electric Railways and Advocating their Progress Everywhere. Members receive illustrated monthly news ERA HEADLIGHTS and occasional publication ELECTRIC RAILROADS featuring some particular line. ERA meetings are held regularly in many large cities. ERA runs frequent field trips, inspections. Members show movies, photos, swap timetables, tickets, maps. The FRANK J. SPRAGUE MEMORIAL LIBRARY, maintained by ERA, is available to members, as are many other advantages. Annual dues $2.00 ($1.00 initiation). Many ERA Members are helping support the BERA, but this is optional. Write for free ERA illustrated Brochure and membership application form.

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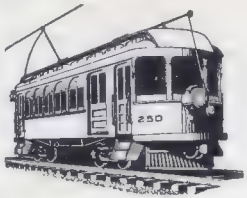

WHAT IS BERA?

A non-profit, educational organization supporting and operating an Electric Railway Museum—a 1½ mile Interurban private right of way along scenic shore of Long Island Sound, from East Haven Green to Short Beach, Conn. Exhibits include carbarn & power plant, and wide assortment of Trolleys rescued from 8 States. Members pay $1.00 monthly dues ($10.00 initiation), some subsidize exhibits by purchasing and paying rent on their own cars. Many contribute work to restore and maintain these priceless examples of a vanishing Golden Era. If you purchase a $50.00 BERA 20 year Bond you are not GIVING money—you are SAVING it for yourself at 3% annual interest and helping support this worthy project. Come and see what we are accomplishing, or send $1.00 for illustrated 1952 Brochure.

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MODEL TRADING POST

W. L. BAY, 1413 Sopera Ave., Coral Gables, Fla., will sell *Little Engines* and *Yankee Shop* ¾ in. scale live steam loco castings, '42 cost. List for stamp.

W. L. JENNINGS, Orchard Cottage, Clement's Green Lane, South Woodham, Chelmsford, Essex, England, will sell 9½ in. gage, 2 in. scale steam driven *Santa Fe*; SP locos; *True Scale*, super detail exhibition finish to company drawings.

HARLAN K. LANE, 119 Broadview Ave., Kingsport, Tenn., will sell HO eqpmt., new and used, reasonably, or will consider trading for S or O tinplate. Send for list.

RUSSELL C. McLAREN, 1035 Mapleton Ave., Oak Park, Ill., will sell much *Lionel*, *AF* 0 gage eqpmt.; locos, pass., frt. cars, switches, transformers, accessories. Also small quantity of std. gage eqpmt. List for stamp.

JOHN F. MARRON, 107 Park Ave., Harrison, N. Y., will sell large quantity of recent *Lionel* 0 gage engs.; cars, switches; also some std. gage, *AF* 0, S gage collectors' items, catalogs, German std. gage accessories; list for stamp. Personal inspection invited, some items for trade.

MRS. EMMA MILLETT, Box 34, Foxburg, Pa., will sell castings for ¾ in. scale *Little Engine;* sections 1 to 10, excell. cond., never used; reduced price.

T. J. PELLETIER, R. 1, Potlatch, Idaho, wants all *Dorfan*, elec. locos 55; elec. steam type with tender 53; 2, 494, 4-door baggage; 6, 495 Pullman; 2, 496 observation car; also 3, 603 *Lionel* Pullman cars; unpainted.

R. M. PERRY, 48 S. Main St., Brattleboro, Vt., will trade large amt. new and used HO eqpmt. for std. gage tr. eqpmt.

JOHN F. PILE, 615 Hudson St., New York 14, N. Y., has 85 HO locos, cars; well built kits. Will sell or trade. List, photo for stamp.

WM. RAMSEY, 221 E. Montgomery Ave., Hatboro, Pa., will sell *Lionel* eqpmt., brand new, below catalog price; list for stamp. NYC Diesel $39; 58 lamppost $2.

WM. T. SANDLIN, Box 517, Richmond, Ky., will trade or buy set of foreign made Schilling elec. trs., battery operated, for experimental purposes.

J. A. SCHNEIDER, 2701 Valentine Ave., New York 58, N. Y., wants *AF*, *Ives*, *Lionel* catalogs, *Lionel* mags.

DWIGHT A. SMITH JR., 89 Woburn St., Reading, Mass., will sell tinplate catalogs, *Dorfan* '30, *Scalecraft* '37, *AF* '35 to '40; make cash offer for lot.

BEN SMITH, 265 Tompkins Ave., Brooklyn 16, N. Y., has std. gage engs.; *Lionel;* trolley car, motorized; *Ives; AF*; *Boucher*. Wants 0 gage locos. *Buddy-L* outdoor trs., any cond. Has toy tr. catalogs '22 to '42 for best offer.

(*) VICTOR G. WAGNER, 6343 S. Wolcott Ave., Chicago 36, Ill., will do photo work from your negs. or from his collec. of juice negs. or trade 35 mm. slides for wide gage *AF* or *Lionel* cars, trk., etc.

EDWARD WRIGHT, 1371 Bruce Ave., Windsor, Ont., Canada, will sell HO gage eqpmt. to Canadians.

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JOHNSON'S BOOKSTORE, 1379 Main St., Springfield, Mass., offers 10 in. recording of steam trains on Boston & Albany, recorded in 1930, $1. Six minutes playing time; 5 sequences, each one a different tr.; one sequence NYC 3004 on Tr. 98; this engine was to handle last steam tr. over the B&A some months later. Recording by Donald E. Shaw and radio station WTXL at Mittineague Crossing, West Springfield, Mass.

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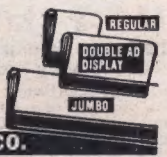

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Wonderful news! This new policy covers everyone from infancy to age 70! When sickness or accident sends you or a member of your family to the hospital—this policy PAYS $100.00 PER WEEK for a day, a month, even a year . . . or just as long as you stay in the hospital. What a wonderful feeling to know your savings are protected and you won't have to go into debt. The money is paid DIRECT TO YOU to spend as you wish. This remarkable new Family Hospital Protection costs only 3c a day for each adult 18 to 59 years of age, and for age 60 to 70 only 4½c a day. This policy even covers children up to 18 years of age with cash benefits of $50.00 a week while in the hospital—yet the cost is only 1½c a day for each child! Benefits paid while confined to any recognized hospital, except government hospitals, rest homes and clinics, spas or sanitariums. Pick your own doctor. Naturally this wonderful policy is issued only to individuals and families now in good health; otherwise the cost would be sky high. But once protected, you are covered for about every sickness or accident. Persons covered may return as often as necessary to the hospital within the year.

This is What $100.00 a Week Can Mean to You When in the Hospital for Sickness or Accident

Money melts away fast when you or a member of your family has to go to the hospital. You have to pay costly hospital board and room . . . doctor's bills and maybe the surgeon's bill too . . . necessary medicines, operating room fees—a thousand and one things you don't count on. What a Godsend this READY CASH BENEFIT WILL BE TO YOU. Here's cash to go a long way toward paying heavy hospital expenses—and the money left over can help pay you for time lost from your job or business. Remember—all cash benefits are paid directly to you.

Examine This Policy Without Cost or Obligation—Read It—Talk It Over—Then Decide

10 DAYS FREE EXAMINATION

You are invited to inspect this new kind of Family Hospital Plan. We will send the actual policy to you for ten days at no cost or obligation. Talk it over with your banker, doctor, lawyer or spiritual adviser. Then make up your mind. This policy backed by the full resources of the nationally known Service Life Insurance Company of Omaha, Nebraska—organized under the laws of Nebraska and with policyholders in every state. SEND NO MONEY—just your name and address! No obligation, of course!

REMEMBER—$100.00 A WEEK CASH BENEFIT IS ACTUALLY $14.25 PER DAY!

FREE INSPECTION . . . MAIL COUPON
The Actual Policy Will Come to You at Once Without Cost or Obligation

The Service Life Insurance Company
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Please rush the new Family Hospital Protection Plan Policy to me on 10 days Free Inspection. I understand that I am under no obligation.

Name.....

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